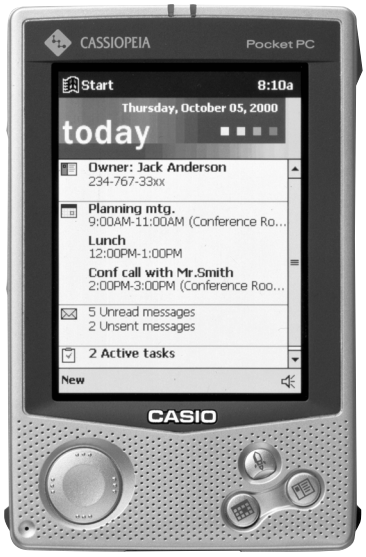
SERVICE MANUAL & PARTS LIST (without price)

Pocket PC

E-125 (JX-650E)

CASSIOPEIA

AUG. 2000



E-125

INDEX

CASIO®

CONTENTS

1. MAIN FEATURES ---- 1

2. SPECIFICATIONS ---- 2

3. UNPACKING
   - 3-1. Enclosed products and parts ---- 4
   - 3-2. Options ---- 4

4. GENERAL GUIDE and INITIAL SETUP
   - 4-1. General Guide ---- 9
   - 4-2. Initial Setup ---- 21

5. RESET OPERATION and BATTERY REPLACEMENT
   - 5-1. Reset Operation and FULL RESET ---- 23
   - 5-2. Battery Replacement ---- 26

6. DATA COMMUNICATIONS
   - 6-1. General ---- 29
   - 6-2. Connection to PC ---- 29
   - 6-3. ActiveSync 3.1 synchronization PC LINK software ---- 31
   - 6-4. BACKUP/RESTORE using ActiveSync 3.1 ---- 31
   - 6-5. Card Backup Tool ---- 31
   - 6-6. Mobile Communication ---- 37
   - 6-7. Infrared Communication ---- 38

7. ADJUSTMENT ---- 39

8. OPERATION CHECK
   - 8-1. Preparation ---- 43
   - 8-2. How to install the diagnostic program ---- 43
   - 8-3. How to delete the diagnostic program ---- 45
   - 8-4. Operation check ---- 46

9. TROUBLESHOOTING ---- 53

10. CIRCUIT BLOCK DIAGRAM ---- 55

11. WIRING DIAGRAM ---- 56

12. SCHEMATIC DIAGRAMS
   - 12-1. Main block (1/3)~(3/3) ---- 57
   - 12-2. ROM block ---- 60
   - 12-3. Key block ---- 61
   - 12-4. USB cradle ---- 62

13. PCB VIEW (Main block) ---- 63

14. DISASSEMBLY PROCEDURE ---- 66

15. PARTS LIST ---- 70

16. EXPLODED VIEW

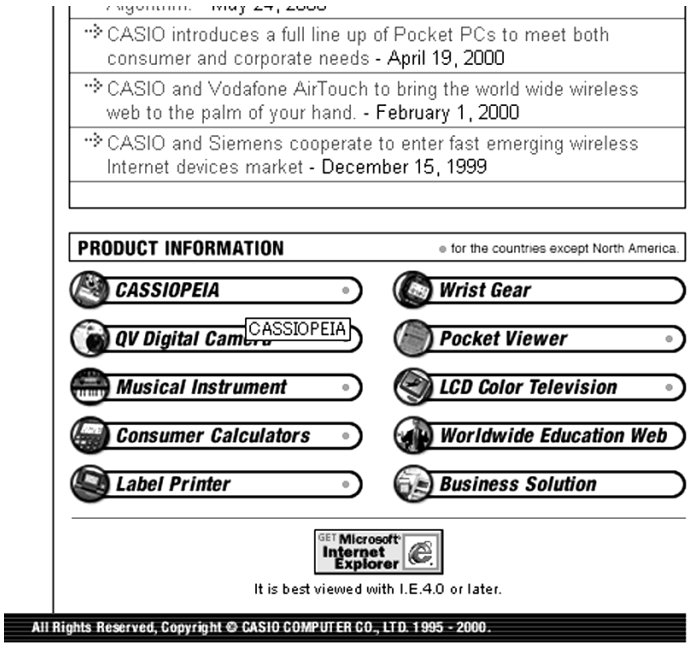
16-1. PCB ASSY and COMPONENTS ---------- 75
16-2. OTHERS ---------- 81
16-3. CRADLE ---------- 84

* Windows is a registered trademark of Microsoft Corporation in the U.S.A. and other countries.
* i486 and Pentium are registered trademarks of Intel Corporation.

1. MAIN FEATURES

Visit the following CASIO Tokyo Web site whenever you want to obtain the information (Main Features, Specifications, and so on)and the software concerning CASIO overseas products.
Address: **http://www.casio.co.jp/English/**

Visiting this homepage, you will see the screen display as shown to the right.
You can select CASIO overseas products genre using this page.
When you want to obtain the information concerning CASSIOPEIA (EM-125 etc.), select ***CASSIOPEIA.***
However, select ***Business Solution*** concerning EG-800.
You can obtain the significant and available information (Main Features, Specifications, FAQ, and so on) and the application software concerning overseas CASSIOPEIA products.


CASIO introduces a full line up of Pocket PCs to meet both consumer and corporate needs - April 19, 2000
CASIO and Vodafone AirTouch to bring the world wide wireless web to the palm of your hand. - February 1, 2000
CASIO and Siemens cooperate to enter fast emerging wireless Internet devices market - December 15, 1999
PRODUCT INFORMATION
for the countries except North America.
CASSIOPEIA
Wrist Gear
QV Digital Camera
CASSIOPEIA
Pocket Viewer
Musical Instrument
LCD Color Television
Consumer Calculators
Worldwide Education Web
Label Printer
Business Solution
GET Microsoft Internet Explorer
It is best viewed with I.E.4.0 or later.
All Rights Reserved, Copyright © CASIO COMPUTER CO., LTD. 1995 - 2000.

When you visit overseas CASSIOPEIA directly, visit the following CASSIOPEIA Web site
Address: **http://www.casio.co.jp/English/ce**
You can visit CASIO America Web site (http://www.casio.com) selecting **North America** in this home page also.

Overview (Quotation from above CASIO TOKYO Home page)
The newest PocketPC, CASSIOPEIA E-125 is a business companion that works with you 24 hours / 7 days a week.
Not only Pocket Word and Excel are included, CASIO Original Color PIM provides you a full schedule management that synchronizes with your PC much easier.

For Mobile business Professionals, CF-Card TYPE II(320MB available) slot allows you to store heavy load of work. An optional CF Camera Card let you capture still images and short video clips that would make your presentation effective and professional. Also the 65,536 color TFT screen can help you display all of your presentations and images clearly.

Main features
E-125 is the unit to which updated powerful devices and software for Pocket PC are applied. CPU is VR4122. System clock is the high speed 150MHz. RAM Memory capacity is 32MB. TFT color (240 × 320 dots) display is adopted. Type I and II CF cards are applicable as well as E-115. Therefore, MMC card is not applicable to E-125.
OS is Windows CE 3.0. The Synchronization LINK software is ActiveSync 3.1.

2. SPECIFICATIONS

Model: E-125

Display: 240 × 320 dots
TFT Color LCD (65,536 colors)

CPU: VR4122

Memory: 16MB

Interfaces: Serial: RS-232C, 115.2 kbps max.
Infrared: IrDA Ver. 1.2
Range: 20 cm max.
USB (Client)

Card Slot: Compact + Flash card, 3.3v type I/ type II

Headphone jack: ø 3.5 mm stereo output
Accepts monaural earphone, stereo earphones/headphones

Power Supply: Main: Rechargeable battery pack JK-210LT (Lithium-Ion battery)
AC adapter (AD-C59200)
Backup: One CR2032 lithium battery

Power Consumption: 4.0 W

Approximate Battery Life (Normal Temperature)

Main: (Actual time may be shorter due to conditions when charging.)
8 hours: Continuous input and data display at a ratio of 1:10, with screen brightness at lowest possible level.
3 hours: Continuous communication using the optional modem card (JK-711MC56, US and Canada only), with screen brightness at lowest possible level.

- Even when the unit is turned off, small amounts of power are required to retain memory contents, etc. This can cause batteries to go dead even when you do not use the unit.
- The actual amount of operation time that can be expected from batteries depends on operating conditions, settings, and other variables.

Backup: 5 years: Main battery is charged or replaced immediately after appearance of message to replace main battery.
1 week: No battery replacement after appearance of message to replace main battery.

Approximate Charge Time (Normal Temperature)

5 to 6 hours: Charge time is longer for the first charges after purchasing the unit or installing a new battery pack.

Operating Temperature: 0°C to 40°C (32°F to 104°F)

Charging Temperature: 10°C to 35°C (50°F to 95°F)

Dimensions: 20H × 83.6W × 131.2D mm (3/4"H × 3 1/4"W × 5 1/8"D)

Weight: Apprpximately 250 g (8.8 oz)

Current consumption:

NOTES:

1. When measuring these current, it is recommended to use the analog ammeter to make the measurement easier due to protecting the ammeter from noises.
2. Make LCD display contrast the best (default) condition before measurement.
3. Measure under the ambient temperature range 15˚C~35˚C

Operation Mode	Input Voltage	Current consumption
Main menu of **OPERATION CHECK** in this manual	Rechargeable Battery : 4.0 ± 0.1V	≤180mA
* POWER CONTROL of **OPERATION CHECK**	Rechargeable Battery : 4.0 ± 0.1V	≤370mA
* POWER CONTROL of **OPERATION CHECK**	AC Adapter : 5.9V ± 0.1V	≤370mA
Power/OFF	Rechargeable Battery : 4.0 ± 0.1V	≤2.5mA
Power/OFF	Lithium battery for Back-up 3.0 ± 0.1V	≤1.6mA

*Tapping **5 POWER CONTROL** in the OPERATION CHECK Main Menu screen display, the following display will appear.

Currently CPU clock : 150 MHz
VT Clock : 50 MHz

Push Action key to exit

Voltage Detectors:

Main (Rechargeable) Battery:

VDET1B : approximately 3.5 V (Low battery message)

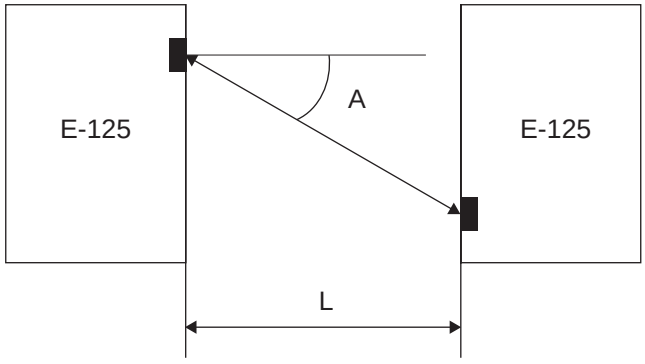
VDET2 : approximately 3.2 V (Forced power OFF)

Back-up Battery:

VDETS : approximately 2.7 V (Low battery message)

Unit Alignment Condition for Data transfer using IrDA :

Length (L)	Angle (A)
L ≤ 20 cm	A ≤ 15˚



3. UNPACKING

Refer to **PARTS LIST** and **EXPLODED VIEW** in this manual concerning parts and products enclosed in the unit.
Visit the following CASIO TOKYO Web site home page concerning options etc.
Address: **http://www.casio.co.jp/English/ce/uk/product/em500_accessory.html**

Note: GSM cable for MC-21 and Message Cam PCJ630AA01B can no be applicable to CASSIOPEIA Pocket PC including E-125.

3-1. Enclosed products and parts

Refer to OTHERS and CRADLE in **PARTS LIST** along with **EXPLODED VIEW** in this manual concerning enclosed parts and products. These products (parts) can be supplied as spare parts.
Some spare parts (USB cradle, stylus and so on) are also marketed as options.
Refer to above CASIO TOKYO Home page concerning these parts.
Although the following parts (CD-ROMs) are enclosed in the unit, these CD-ROMs can not be supplied as spare parts . Because these CD-ROMs are directly supplied to the factory from manufacturers.
Media Player Upgrate CD-ROM (CDJ650E07A) will be not enclosed after 30000 mass production.

Enclosed parts which can not be supplied as spare parts	Code No.	Specification	Note
CD-ROM/AUDIBLE	3335 6902	CDJ530AA04A	Audible CD-ROM Direct supply from Microsoft Corp.
CD-ROM/AOL	1002 7680	CDJ580EA04A	AOL CD-ROM Direct supply from AOL

3-2. Options

Although the following products are not enclosed in the unit, these products are available to use wholly the unit.
Refer to the following home page also.
Adress (URL) : **http: //www.casio.co.jp/English/system/pa/products/ht/eg800_option.html**

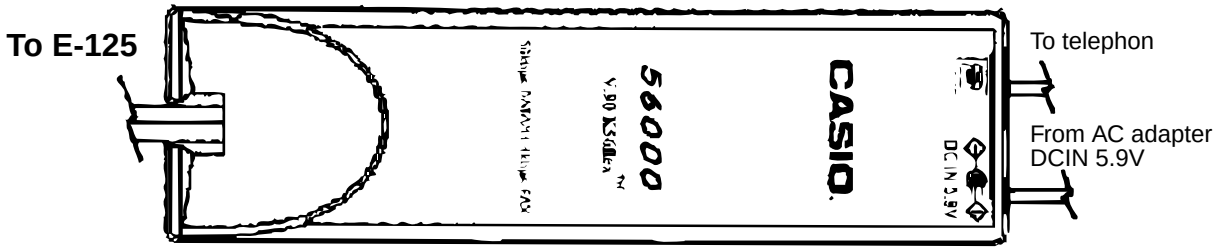
■ Car adapter and Charger

1. Car adapter **JK-210CA**
   Attach it directly to the E-125 or to the E-125 cradle to provide power and recharge the batteries.
   INPUT: 12~24V DC/OUT: 5.9V 2A DC
   Fuse (5A) is assembled in JK-210CA.
2. Rapid Charger **CHC42110UU** (Japan, US and Canada only)
   INPUT: 100~240V AC/OUTPUT: 4.2V 1.1A DC
   Power cord **CBL-K799-AC-JU** will be enclosed in CHC42110UU.
   This charger is now applicable to Japan, US and Canada only due to the electric safety recognition (Japan safety standard, UL, FCC and CSA) licenses. The other licences are not obtained now.

■ Communication

1. RS-232C Cradle **JK-512CR**
   Although USB Cradle is enclosed in the unit, RS-232C Cradle is not enclosed.
   If there are no USB port onto your PC, it is recommended to use this cradle.
2. USB Cable **JK-582CA**
   When you want to connect directly CASSIOPEIA to PC's USB port without the cradle, use this cable. The line driver/receiver is assembled onto the cradle to reject the internal/external noises and malfunction at the time of data transfer.
   Therefore, it is recommended to use the cradle if possible.

3. RS-232C Cradle **JK-580CA**
   The cable connected to RS-232C port on PC.
   If is recommended to use the cradle if possible as described above.
4. CDMA digital phone connection cable **JK-541CA** (US and Canada only)
   Refer to page 26 in the Hard Manual for E-125 or **GENERAL GUIDE** in this manual concerning the configuration etc.
5. Modem **JK-720MA** (US and Canada only)
   Connecting CASSIOPEIA to the analog telephone line.



6. Modem card **JK-711MC56** (US and Canada only)

■ **CF camera card JK-710DC**

Visit the following CASIO TOKYO Home page.
http://www.casio.co.jp/English/ce/product/mobile_canera.html

The following descriptions are the quotation from above home page.

By installing an optional Digital Camera Card (350,000 pixel), you can take digital snapshots and movies. Movies are stored in the CASIO Format Movie File (CMF file) and still-photos are stored in the JPEG file.

Can be use as an image memo pad.

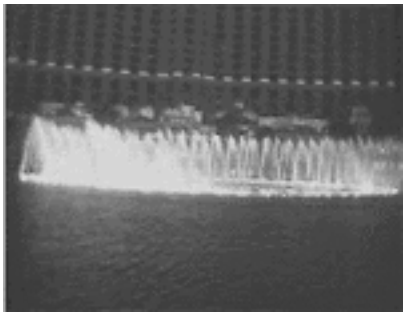
Special Features
Album Function

Can be used as
an image memo pad.

Can put date, place
and comments
beside each snaps.

Can put name
on the each albums.

Movie Clip
Download some of the movies
captured from the JK-710DC.
• To see these movies, you need to
download the desktop player.
Get it here



Specifications
• 640 X 480 Image Display
• Album Capabilities
• Swivel Lens
• Weight: 1.6 ounces
• Movie Images in CMF format
• Thumbnail Indexing
• Memory for Storage
• 45 Minute Battery Life
• Still Images in JPEG format

■ Screen protectors JK-811PS5

Use this sheet to prootect the touch panel from the scratch and other damages.
5 sheets are included.

■ CompactFlash Card

Refer to page 15 in this manual.

■ **Enhance your device** (Quotation from CASIO TOKYO Home page)
You will find a lot of different products with new products added. So whether you're looking to add memory to your device, or purchase a new modem - we've got what you need.

Please make sure CASIO does not guarantee the reliability of these peripherals.
Please ask questions regarding the peripherals to each manufacture you visit from this page.

To hardware/accessory manufacturers.

Socket Communications, Inc.

Socket's Digital Phone Card

Socket In-Hand Scan CF+ Card

CF+ Low Power Ethernet Card

Pretec Electronics Corporation

56K CompactModem

CompactSerial

CompactSSFDC

CompactFlash™ Type I
Capacity: 4, 8, 16, 32, 48, 64, 96, 128MB

CompactFlash™ Type II
Capacity: 80, 160, 320MB

CompactGPS

MarWare, Inc.

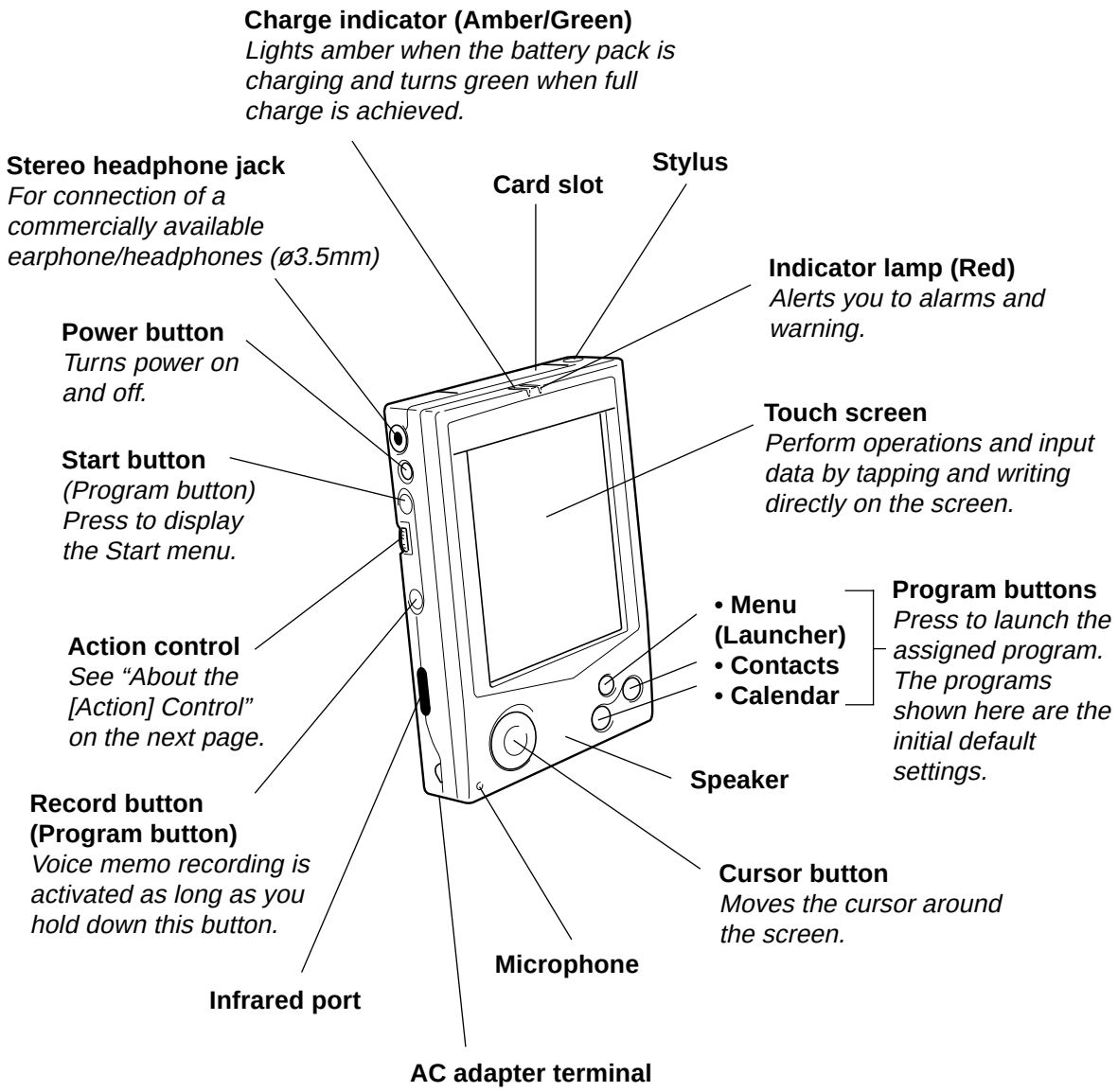
SportSuit II

SportSuit III

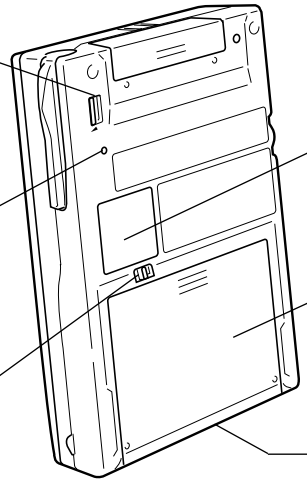
CEO Plus

4. GENERAL GUIDE and INITIAL SET UP

4.1. General Guide


Charge indicator (Amber/Green)
Lights amber when the battery pack is charging and turns green when full charge is achieved.
Stereo headphone jack
For connection of a commercially available earphone/headphones (ø3.5mm)
Card slot
Stylus
Indicator lamp (Red)
Alerts you to alarms and warning.
Power button
Turns power on and off.
Touch screen
Perform operations and input data by tapping and writing directly on the screen.
Start button
(Program button)
Press to display the Start menu.
• Menu (Launcher)
• Contacts
• Calendar
Program buttons
Press to launch the assigned program. The programs shown here are the initial default settings.
Action control
See "About the [Action] Control" on the next page.
Speaker
Record button (Program button)
Voice memo recording is activated as long as you hold down this button.
Cursor button
Moves the cursor around the screen.
Microphone
Infrared port
AC adapter terminal

Card lock switch
If the inserted card has a lock, this switch locks the card in place so it does not come out accidentally.



Backup battery cover

RESET button

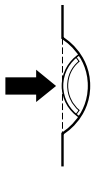
Main battery cover

Battery cover switch

Serial connector
For connection of the cradle, the CASSIOPEIA USB cable, or the RS-232C serial cable.

About the [Action] Control

Operations can be performed by pressing and rotating the [Action] control.



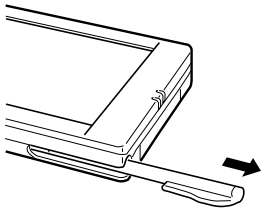
Pressing the [Action] control performs an operation similar to the Enter key of a computer keyboard.

Rotating the [Action] control performs operations similar to the up and down arrow keys of a computer keyboard.

See Pocket PC online help for information about using the [Action] control with each application. The text in the online help indicates an [Action] control press operation as “Action,” and an [Action] control rotate operation as “Up/Down control.”

Using the Stylus

Data input and virtually all other operations are performed using a stylus, which is housed inside the stylus holder in the higher right corner of the CASSIOPEIA.



The following defines the various operations that you can perform with the stylus.

Tap ..... Touch the screen once with the stylus to open items and select options.

Drag ..... Hold the stylus on the screen and drag across the screen to select text and images. Drag in a list to select multiple items.

Tap-and-hold ..... Tap and hold the stylus on an item to see a list of actions available for that item. On the pop-up menu that appears, tap the action you want to perform.

Important ⚠

- Take care that you do not misplace or otherwise lose the stylus by always storing it in the stylus holder when you are not using it.
- Take care to avoid breaking the tip of the stylus.
- Use only the stylus that comes with the CASSIOPEIA, or some other stylus type instrument* to perform touch screen operations. Never use a pen, pencil, or other sharp writing implement.

  *(with a soft, blunt point)

Recalibrating the Touch Screen

You should recalibrate the touch screen whenever touch screen response is bad, or when the operation performed is different from the operation you expected when tapping on the touch screen.

To recalibrate the touch screen, press the [Action] control while holding down the [Power] button (or tap , **Settings**, the **System** tab, and then the **Align Screen**). Next, follow the instructions that appear on the screen.

Adjusting Display Contrast

Perform the following operations to adjust display contrast and make figures on the display darker or lighter.

- Tap and then **Settings**. On the **System** tab, tap **Brightness**. Follow the instructions on your screen for adjusting the contrast.
- You can also adjust contrast by holding down [Action] and pressing the top of the cursor button to make contrast darker, and the bottom of the cursor button to make it lighter.

Adjusting Display Brightness

Use the following operations to adjust display brightness to make it easier to read.

- Tap and then **Settings**. On the **System** tab, tap **Brightness**. On the dialog box that appears, tap the **Brightness** tab.
- While holding down the [Action] button, press the right side of the cursor button to make the screen brighter, or the left side of the cursor button to make it dimmer.

Adjusting Auto Dimming Settings

1. Tap and then **Settings**. On the **System** tab, tap **Brightness**.
2. On the dialog box that appears, tap the **Auto Dim** tab.
3. Follow the instructions that appear on the screen to make auto dimming settings.
- You can make separate auto dimming settings for battery power and AC adapter power by checking the appropriate check box.

Changing Applications Assigned to the Program Button

- Tap and then **Settings**. On the **Personal** tab, tap **Button**, and then follow the instructions that appear on the display.
- Button Assignment Utility makes it easy to assign CASIO Mobile Calendar to the button and CASIO Mobile Address Book to the button. To use Button Assignment Utility, tap , **Programs**, **Utility**, and then **Button Assignment**.

Using the Cradle

The cradle provides quick and easy connection between your CASSIOPEIA and a personal computer. CASSIOPEIA can also be powered from an AC power source when it is placed on the cradle.

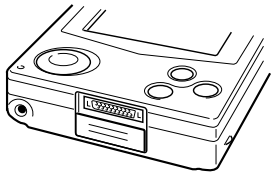
- The battery pack charges while the CASSIOPEIA is on the cradle.

Important ⚠

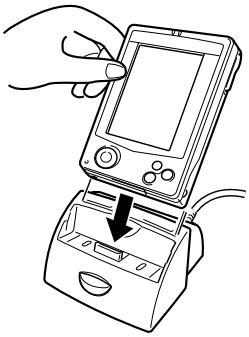
Make sure that CASSIOPEIA power is turned off before you place it onto or remove it from the cradle.

Use the following procedure to place the unit onto the cradle.

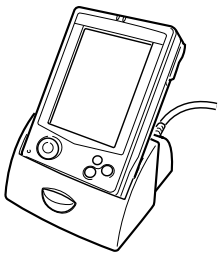
1. Place the cradle on a desk or other flat, level surface.
2. Turn off the CASSIOPEIA.
3. Slide the CASSIOPEIA's serial connector cover to open it.



4. Orient the CASSIOPEIA in relation to the cradle as shown in the illustration below.



5. Taking care to align the serial connector on the bottom of the CASSIOPEIA with the connector on the cradle, lower the CASSIOPEIA into the cradle as shown in the illustration below.

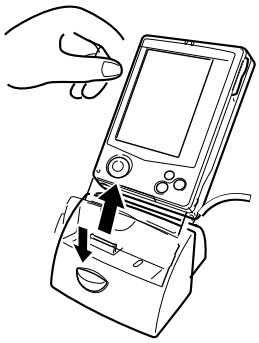


Important ⚠

Make sure the CASSIOPEIA lowers securely into the cradle as far as it can go.

To remove the CASSIOPEIA from the cradle

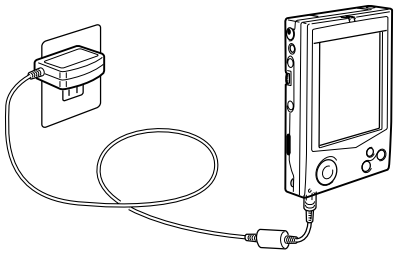
1. Press the cradle's eject button.
2. Slide the CASSIOPEIA straight up from the cradle.



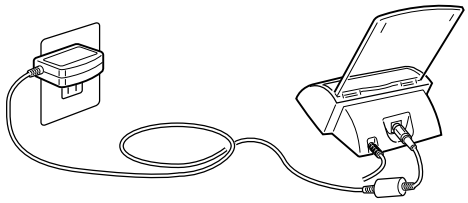
Using the AC Adapter (Refer to PARTS LIST and EXPLODED VIEW in this manual concerning AC adapter)

You can use the AC adapter to directly power the CASSIOPEIA or to supply power through the cradle. The battery pack charges while the CASSIOPEIA is directly connected to a power source by the AC adapter or while it is on the cradle.

■ **Direct Connection**



■ **Cradle Connection**



Warning ⚠

Use only the AC adapter that is specified for this unit. Use of another type of AC sadapter creates the danger of malfunction and bursting of battery.

Important ⚠

- Power also will not turn on if the main battery loaded in the CASSIOPEIA is dead.
- Long term use of the AC adapter can cause it to become warm to the touch. This is normal and does not indicate malfunction.
- Be sure to unplug the AC adapter from the power outlet whenever you are not using it.
- The AC adapter is designed for indoor use only. It should not be used outdoors.

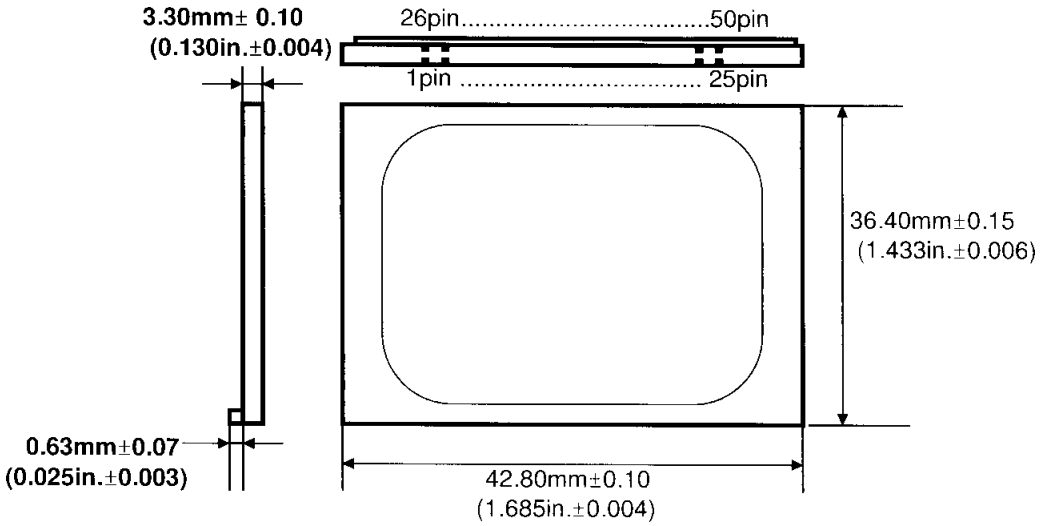
Using a CompactFlash Card

Your CASSIOPEIA supports Type I and Type II CompactFlash Cards (3.3V).

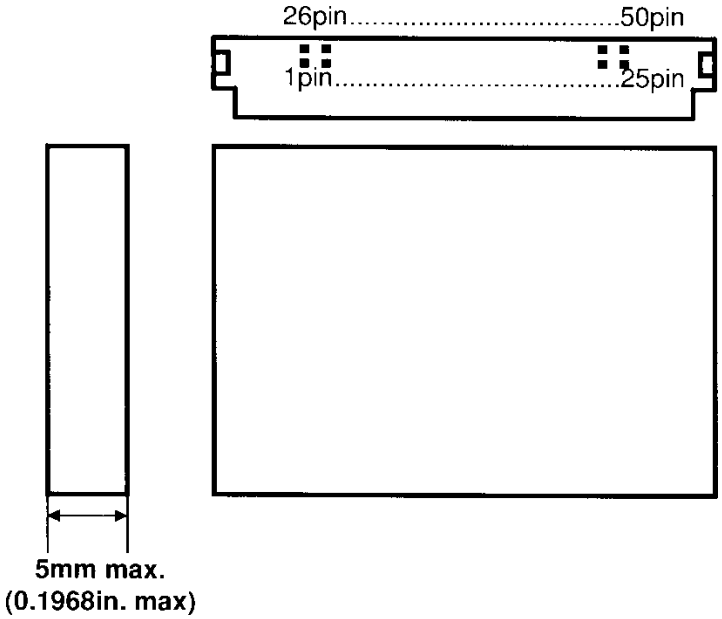
At present, all **CASIO CompactFlash Cards** are **Type** I ones.
The following **CASIO CompactFlash Cards** have been released as OPTIONS.

CF-2V (2MB)/ CF-4V (4MB)/ CF-8V (8MB)/ CF-8X (8MB)/ CF-10V (10MB)/ CF-15V (15MB)/ CF-15X (15MB)/ CF-16X (16MB)/ CF-30X (30MB)/ CF-32X (32MB)/ CF-48X (48MB)/ CF-64X (64MB)/ CF-128X (128MB)/ CF-192X (192MB)
** Refer to UNPACKING in this manual concerning CF card also.*

NOTE
Type I CF Card is different from Type II CF Card with thickness and configuration as shown below.



<Type I CompactFlash Storage Card Dimensions>



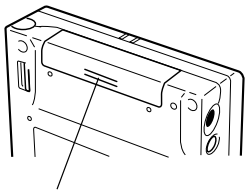
<Type II CompactFlash Storage Card Dimensions>

- Length and Width of Type I are the same as ones of Type II.

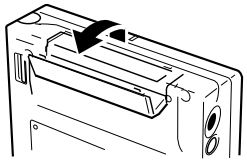
Important ⚠

- The card slot cover will not close when certain types of cards are in the slot. Remove the card slot cover and keep it in a safe place so you can replace it when you remove the card.
- Gently but firmly slide the card into place as far as it will go, but do not force it. Forcing a card can damage connectors. If you have problems inserting a card, pull it out and check to make sure it is oriented correctly.
- We strongly recommend that you store all unsaved data you are inputting or editing before performing this procedure.
- Sometimes, your CASSIOPEIA may not be able to detect a CompactFlash Card. This is indicated when a program on the card does not start up normally. When this happens, remove the card, reinsert it, and then press the CASSIOPEIA RESET button.
- Your CASSIOPEIA supports 3.3V CompactFlash cards only. Cards that can operate on 5.0V only are not supported.
- Use of an IO card that requires large amounts of power can cause the CASSIOPEIA to restart when CASSIOPEIA battery power is low.

1. Make sure your CASSIOPEIA is turned off.
   - Press the [Power] button to turn off power.
2. Pressing upward at the point indicated in the illustration, slide the cover up to open it.



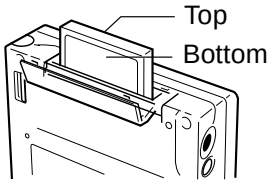
Press upward here.

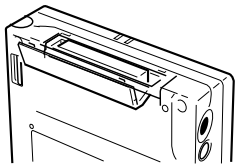


Important ⚠

Pull the cover out as far as it will go and then swing it open.

3. If there is already a card in the slot, remove it.
4. Slide the card you want to use into the card slot.
   - Make sure the top of the card is facing towards the top of the CASSIOPEIA unit. A card that is not oriented correctly will not slide all the way into the slot.



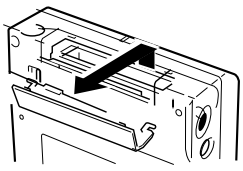


Carefully slide the card into the slot as far as it will go.

5. Close the card slot cover.

Removing the Card Slot Cover

Remove the card slot cover when using a card that protrudes from the slot when fully inserted. To remove the cover, pull it up part way open, and then slide it from the unit as shown in the illustration below.



Important⚠

Handle the cover carefully and do not force it! Using too much force can cause the cover hooks to break off!

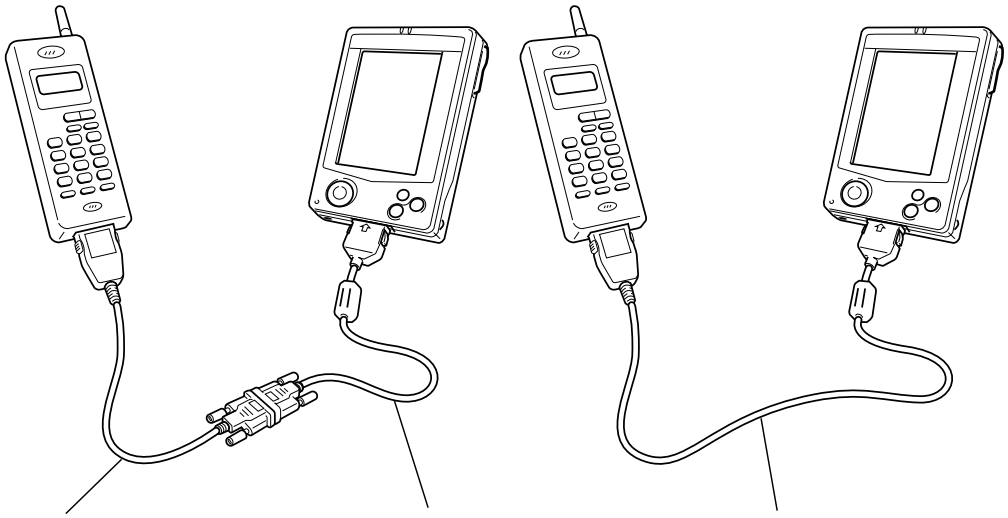
Replacing the Card Slot Cover

Reverse the above removal operation to replace the card slot cover.

Digital Phone Connection Cable

- U.S. and Canada: Use a cdma digital phone connection cable (JK-541CA).
- For a GSM type digital phone, use a commercially available cable that is compatible with the CASSIOPEIA connector.
- After you connect the CASSIOPEIA to your digital telephone, you can dial up our Internet service provider or company server.

The following shows how to connect the CASSIOPEIA to a digital telephone.



- Separately available cable (D-sub 9-pin) for your particular telephone model, available from your phone manufacturer
- Optionally available digital telephone cable (9-pin)
- Commercially available GSM connecting cable

To disconnect the digital telephone cable from the CASSIOPEIA, squeeze the release buttons on the sides of the connector and unplug it.

Important ⚠

- Make sure your CASSIOPEIA is turned off before connecting the digital telephone cable.
- See the *Pocket PC User's Guide* for information about settings, operations, and precautions when connecting to a company network or the Internet.
- Make sure you are in an area where your telephone signal is strong before trying to dial in to a computer.

Data communication may not be possible if you are within an area with poor signal reception, even though it is within the service area of your telephone service provider.
Also note that noise can cause errors and make communication impossible, even though the signal is strong. If this happens, try again.

- Never unplug the cables or turn off power while data communication is in progress.
- You may not be able to establish a connection with another computer that is also using a portable telephone for communication.
- Whenever you disconnect the digital telephone cable from the CASSIOPEIA, wait at least three seconds before you connect it again. Disconnecting the cable and immediately reconnecting it again can make subsequent data communications impossible.
- Disconnect the digital telephone cable from the CASSIOPEIA when you are finished with data communication.
- See the documentation that comes with your digital telephone for information about its operations.

About the Modem Adapter and Modem Card (U.S. and Canada Only)

The Modem Adapter (JK-720MA) and CompactFlash type Modem Card (JK-711MC56) make it possible to use your CASSIOPEIA to access the Internet over an analog dial-up connection. See the documentation that comes with the modem card for information about how to use it.

Important ⚠

Check to make sure that the battery pack is charged before using the modem adapter and modem card. Low battery power can cause sudden interruption of communications, unstable communications, and loss of data.

About the Digital Camera Card

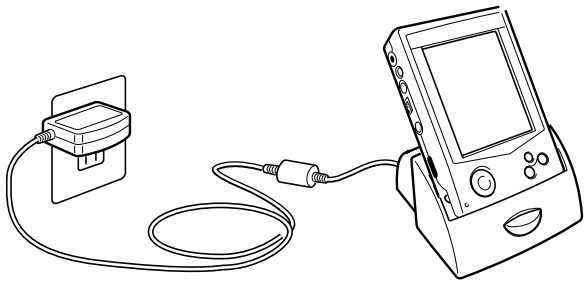
Installing the optionally available CompactFlash type digital camera card (JK-710DC) makes it possible for your CASSIOPEIA to record and playback both movies and snapshots. For full details on how to use the digital camera card, see the documentation that comes with it.

Important ⚠

- Do not install the Mobile Camera application from the CD-ROM that comes with the digital camera card (JK-710DC)! Your CASSIOPEIA will not operate properly with this version of Mobile Camera.
- When using the optionally available digital camera card (JK-710DC), be sure to install the Mobile Picture & Video Player with Camera application from the CD-ROM that comes bundled with your CASSIOPEIA.

Charging the Battery Pack

1. Install the battery pack into the CASSIOPEIA.
2. Attach the AC adapter to the cradle and place the CASSIOPEIA onto the cradle.



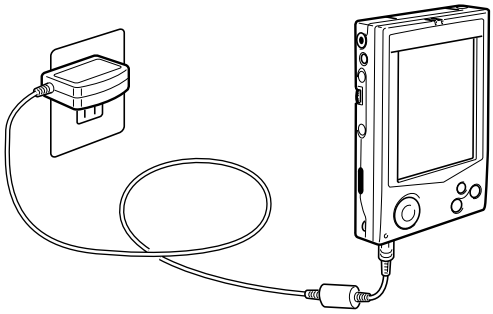
- Charging starts automatically as soon as you place the CASSIOPEIA onto the cradle.
- The charge indicator is amber while charging is in progress, and turns green when charging is complete.
- It takes about **five or six hours** to reach full charge.
- You can use your CASSIOPEIA while the battery pack is charging.

Important ⚠

- Do not use the CASSIOPEIA while it is charging for the first time after you purchased it or for the first time after you installed a newly purchased battery pack.
- If the battery pack does not achieve full charge after the normal charge time, unplug the AC adapter from the CASSIOPEIA to stop charging.

Remove the CASSIOPEIA from the cradle after charging is complete.

The following illustration shows how to connect the AC adapter directly to the CASSIOPEIA for charging.

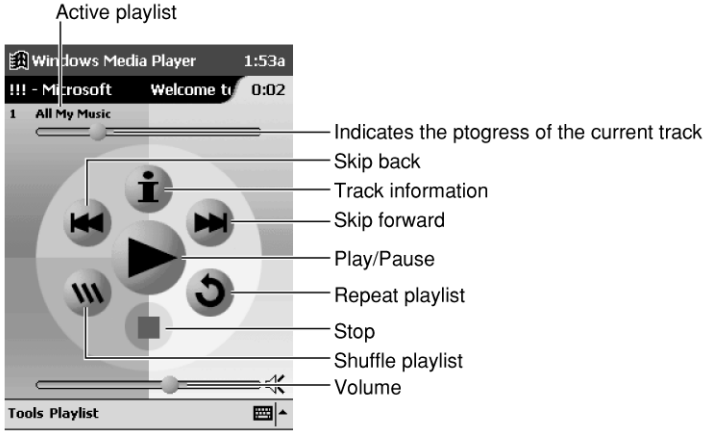


- Charging starts automatically as soon as you attach the AC adapter to the CASSIOPEIA.
- Direct connection charging conditions are the same as those described for cradle charging above.

Windows Media Player for Pocket PC

Use Windows Media Player for Pocket PC to listen to digital audio files.

To switch to Windows Media Player, tap and then **Windows Media Player**.



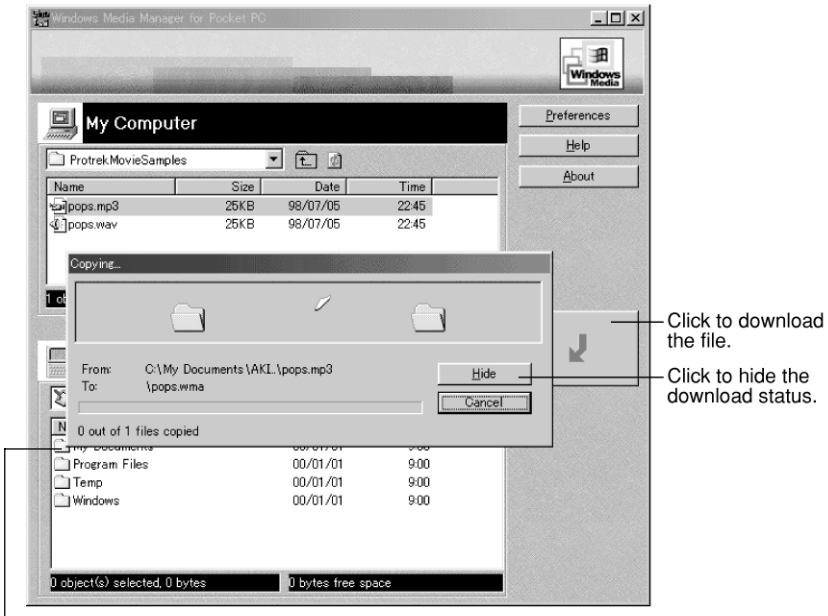
Using Windows Media Manager for Pocket PC

Use Windows Media Manager for Pocket PC on the desktop computer to create digital audio files in Windows Media format and to transfer audio content to your Pocket PC or storage card. With Windows Media format, you can create high-quality audio for your Pocket PC without using large amounts of Pocket PC memory.

You can transfer the following media formats to your Pocket PC for use with the Windows Media Player: ASF (Advanced Streaming Format), WMA (Windows Media Audio), MP3 (MPEG Audio Layer 3), and WAV (waveform).

Windows Media Manager is included in the Extras folder on the ActiveSync CD. You must install Windows Media Manager on your desktop computer to copy and convert digital audio files.

**** To Install Windows Media Manager to your PC, click wmmsetup.exe file Icon in the Media holder in the Extras holder, and then operate your PC according to messages on the screen. It is recommended to open and read readme.txt file in this Media holder. Completing above installation, Windows Media Manager will be added to the start program menu of your PC.***



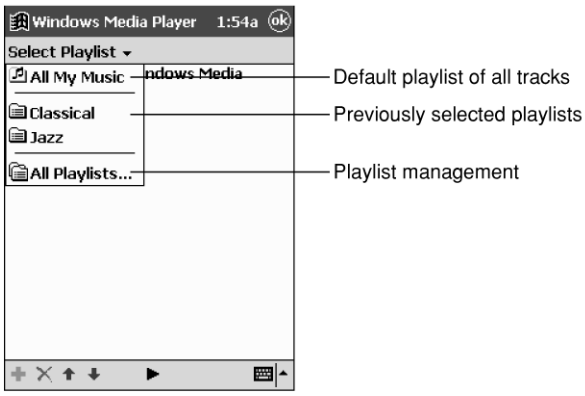
* Welcome To Windows Media. wma file will be previously installed to My Documents holder in the unit.

What is Packaged Content?

Packaged content is digital music that has been encrypted for distribution to prevent unauthorized access to copyrighted content. Windows Media Player for Pocket PC cannot play packaged content without a valid license. First use Windows Media Player on the desktop computer to obtain packaged content that has a license that allows transferring the content to your Pocket PC. Then use Windows Media Manager for Pocket PC to transfer the packaged content and its license to your Pocket PC or storage card. To successfully transfer packaged content, your Pocket PC or storage card may require a hardware serial number.
You can play packaged content until the license expires. During license download, you will be informed of the terms of the license. License terms can be for an unlimited time, a set amount of time, or a set number of playbacks. A license can support content being copied to a Pocket PC or storage card an unlimited number of times or one time only. Terms are entirely dependent on the content provider.

Using the Playlist Manager

Use the playlist manager to set the track playback order. All **My Music** is the default playlist. It contains all digital audio files available for playback on your Pocket PC and storage card. To see a list of recently selected playlists, tap **Select Playlist**. To create or edit playlists, tap All Playlists.



Tap and hold a track or playlist to perform actions such as copying, moving, and deleting.

For more information on using Windows Media Player, tap and then **Help**.

4-2. Initial Setup

After you first unpack your CASSIOPEIA, perform the following initial setup procedure before using it for the first time.

1. Load the main battery (rechargeable battery pack).

Important ⚠

Be sure to use the AC Adapter to charge the battery pack before doing anything else. Your CASSIOPEIA will not operate correctly if you load the backup battery before charging the battery pack.

2. Use the AC Adapter to charge the battery pack.

3. Load the backup battery.

4. Press the [Power] button.
- After a few moments the welcome screen appears.

5. Follow the steps in the Welcome Wizard.

6. When finished, you'll see the Today screen.

- See "Pocket PC Basics" at the back of *Quick Start Guide* for information about the Today screen and other Pocket PC Basics.
- You also need to install ActiveSync before you can communicate with a desktop computer.

Important ⚠

- If the touch panel does not respond when you tap it or if nothing appears on the display, try performing a full reset. If this does not restore proper operation, remove the main battery and the backup battery and wait for about five minutes. Reload the main battery first and then the backup battery, and perform the above procedure again from step 4.
- If the message "**A problem with memory contents has been found...**" appears on the display, perform a full reset.

5. RESET OPERATION and BATTERY REPLACEMENT

5-1. Reset Operation and FULL RESET

Resetting the Unit

"Reset" is similar to a computer reboot. Performing a reset deletes any data that is in the process of being input or edited, without yet being saved. Data stored in memory and all settings, however, are retained.
Perform the reset operation whenever the unit fails to operate correctly due to operational error or some other abnormality. Any of the following symptoms indicate that reset is required.

- Failure of the unit to respond when the screen is tapped or a button is pressed.
- The hourglass icon remaining on the screen.

Performing a Reset

1. Use the stylus to press the RESET button.
- The unit performs a reset followed by a memory check operation.
  If no data error is found, the following two screens appear on the display in succession.
  - Startup screen
  - Desktop

2. Normal unit operation is possible after the desktop appears.
- Memory data and settings are retained when you reset the Pocket PC.

Important ⚠

If the above operation does not solve the problem, perform a full reset.

Memory Error Message

If the memory check operation that the unit performs when the RESET button is pressed detects a data error, the following message appears on the screen instead of the startup screen.

"A problem with memory contents has been found. Press [Action] to continue with the reset procedure, which restores normal system operation.
Note that if the system determines that user memory cannot be repaired, it will delete all user data currently in memory.
See the User's Guide for details about initializing memory."

This message indicates that the memory error is fatal and so recovery is impossible.
Press the [Action] control to execute a full reset (memory initialize), which deletes all data stored in memory.

- Pressing the [Action] control should display the Startup screen followed by the touch screen calibration screen. Perform steps 5 through 6 under "Initial Setup" to set up the unit.
- If pressing the [Action] control returns to the desktop without displaying the startup screen first, see the following explanation for the procedure you need to follow.

What to do if the startup screen does not appear when you press the [Action] control

Even though the desktop appears when you press the [Action] control, there is still a data error in memory and you have to perform a full reset (memory initialize). Before you do, however, there is the chance that some of the data in memory can be recalled and even transferred to a computer. Try recalling the data you need before performing the procedure described on the next page to perform a full reset.

Important ⚠

Do not use the ActiveSync backup function to back up data to a computer when you suspect a data error. Doing so may also include the corrupted data that is causing your problem, which means the problem will reappear when you restore the data.

Full Reset (Memory Initialize)

Full reset (memory initialize) deletes all data, and resets all unit parameters to their initial defaults. The following are conditions when you should perform a full reset.

- When you want to delete all memory data and return unit settings to their factory defaults
- When you forget your password and need to clear it
- When a data error causes operational problems
- Appearance of the message: "**A problem with memory contents has been found...**"

Performing a Full Reset

Important ⚠

- The following procedure deletes all data in memory. Be sure that data is backed up or that you no longer need it before performing the following procedure.
- If there is a CompactFlash Card in the CASSIOPEIA's slot, remove the card before performing the full reset.

1. Make sure that unit power is turned on.

2. While holding down the [Power] button, use the stylus to hold down the RESET button for about two seconds.
- This causes the following message to appear on the display screen.

"Proceeding with this operation initializes memory. Press [Action] to proceed or [Record] to cancel."

3. Press the [Action] control.
- This causes the following message to appear on the display screen.

"Proceeding with this operation deletes all data stored in memory. Press [Action] to proceed or [Record] to cancel."

4. Press the [Action] control again.
- This starts the full reset operation, which deletes all data in memory.
- Pressing the [Action] control displays the Startup screen. Perform steps 5 through 6 under "Initial Setup" to set up the unit.

You can abort the full reset operation while the messages in steps 2 and 3 are on the display by pressing the [Record] button.

Errors Following a Full Reset

Either of the following two conditions can cause errors to continue, even after you perform a full reset.

- Hardware defect
- System problem caused by failure by you to correctly perform the reset procedure before using the unit for the first time

If you suspect that the problem is being caused because you did not properly reset the unit before using it for the first time, perform the following procedure.
This should correct the problem.

- Perform the following procedure if your CASSIOPEIA remains locked up even after you perform a full reset.

Important ⚠

- The following operation deletes all data in CASSIOPEIA memory.
- If you previously backed up your CASSIOPEIA data to your desktop computer hard disk or a CompactFlash card, you will be able to restore the data after performing the following operation.
- If backed up data includes data that is the cause of the original problem, your CASSIOPEIA may start malfunctioning again after data is restored. In this case, you will not be able to use the backed up data.
- To protect against backing up corrupted data that can cause problems when restored, first synchronize Pocket Outlook program data between your CASSIOPEIA and desktop computer. Next, use drag and drop to copy other files to you computer. See *ActiveSync Help* for information about synchronizing data and copying files.

1. Remove both the main battery and the backup battery from the CASSIOPEIA.
2. Wait for about **five minutes**.
3. Reload the main battery.
- Be sure to load the main battery first. The CASSIOPEIA will not operate properly if you load the backup battery first. If you inadvertently load the backup battery first, start over from step 1 above.

4. Attach the AC adapter and charge the battery pack.
5. Reload the backup battery.
6. Make sure the battery cover switch is in the LOCK position.
7. Wait for about **five seconds** and then press the [Power] button to turn on your CASSIOPEIA.

- Turning on power displays the startup screen, following by the touch panel calibration screen.

8. Follow the instructions that appear on the screen to make initial settings.
9. After setting up your CASSIOPEIA, turn it off.

- After completing the above procedure, you can restore data you have backed up on your desktop computer hard disk or CompactFlash card. *See ActiveSync Help* for information about restoring backed up.
- See the *Card Backup Tool* manual (PDF file) on the *CASSIOPEIA Application CD-ROM* for information about using the Card Backup Tool program to restore data from a CompactFlash card.

5-2. Battery Replacement

Batteries

Your CASSIOPEIA is powered by a dual power supply that consists of a main battery (rechargeable battery pack) and a backup battery (CR2032 lithium battery).

- We recommend that you use the Power Properties to keep informed about the current levels of your main and backup batteries. See the separate *Pocket PC User's Guide* and Pocket PC online help for more information about this properties.

Important ⚠

The following messages appear whenever battery power drops below a certain level.

Main Battery

Recharge the battery pack as soon as possible after the following message appears.
"Main Batteries Very Low
To prevent possible data loss, replace or recharge your main batteries according to the owner's manual."

Backup Battery

Replace the backup battery as soon as possible after the following message appears.
"Backup Battery Very Low
To prevent possible data loss, replace or recharge your backup battery according to the owner's manual."

- You can monitor the current battery power level accessing Power Properties or by checking the battery icon in the command bar of the Today screen.
- Whenever the low battery warning message appears, especially if it appears right after you turn on power, follow the instructions that appear on the screen and replace batteries as soon as possible. Continued use under low battery power can cause unstable performance of your Pocket PC.
- Data stored in memory can be lost if you continue operation after the low battery message appears or if you incorrectly load batteries. Be sure to always back up important data on your desktop computer hard disk or on a CompactFlash card. See *ActiveSync Help* for information about backing up files to a desktop computer.
- See the *Card Backup Tool* manual (PDF file) on the *CASSIOPEIA* Application *CD-ROM* for information about backing up data to a CompactFlash card for information about using the Card Backup Tool program to back up data to a CompactFlash card.
- Never remove the main battery and backup battery from the CASSIOPEIA at the same time. Doing so causes all data stored in memory to be deleted.
- Should the main battery and the backup battery both require replacement, be sure to always replace the main battery first.
- Use the rechargeable battery pack for the main battery and a CR2032 lithium battery for the backup battery. Never use any other type of batteries.

If unit power turns off due to insufficient power, the following warning message appears on the display the next time you turn on unit power.
"Warning
Due to high current demand by the hardware, the system powered down in order to protect memory contents..."

If unit power turns off due to sudden power drain by a CompactFlash card, the following warning message appears on the display the next time you turn on unit power.
"Warning
Due to high current demand by the card, the system powered down in order to protect memory contents..."

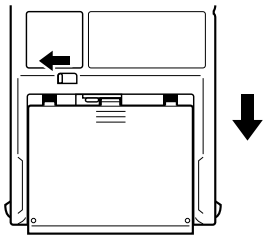
Important ⚠

Be sure to observe the following important battery handling precautions. Failure to do so can cause batteries to leak, resulting in damage to surrounding items and create the danger of fire and electrical shock.

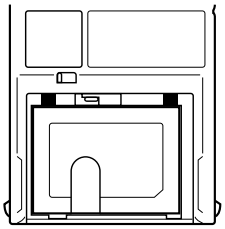
- Always make sure that the positive (+) and negative (–) poles of the batteries are oriented correctly.
- Use only the types of batteries specified for use with this unit.
- Charge the battery pack in an area where the temperature is between **10˚C (50˚F)** and **35˚C (95˚F)**. Charging in areas that are very cold or exposed to direct sunlight can cause deterioration and leaking of the battery pack.
- To avoid deterioration and leaking, the battery pack is designed to discharge even when you do not use the CASSIOPEIA. Be sure to recharge the battery pack at least once every three months, regardless of how much you use the CASSIOPEIA during that time.
- A battery pack that loses power too quickly after it is charged is probably near the end of its service life. In such a case, you have to purchase a new battery pack.

Replacing the Main Battery

1. Make sure your CASSIOPEIA is turned off.
   - Press the [Power] button to turn off power.
2. Turn the CASSIOPEIA over.
3. Slide the battery cover switch to MAIN, and then remove the main battery cover.



4. Pull on the tape to raise the main battery.
5. Remove the main battery and then load a new battery pack.
   - Make sure that the battery pack is oriented correctly.
   - When you load the battery pack, make sure the end of the tape is sticking out above the battery pack.



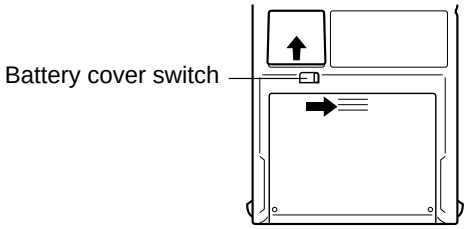
6. Replace the main battery cover.
7. Slide the battery cover switch to LOCK.

Replacing the Backup Battery

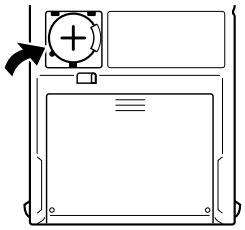
Important ⚠

- Never remove the main battery and backup battery from the CASSIOPEIA at the same time. Doing so causes all data stored in memory to be deleted.
- Should the main battery and the backup battery both require replacement, be sure to always replace the main battery first.
- Be sure to replace the backup battery as soon as possible whenever the following message appears on the display: **“Backup Battery Very Low To prevent possible data loss, replace or recharge your backup battery according to the owner’s manual.”**

1. Make sure your CASSIOPEIA is turned off.
   - Press the [Power] button to turn off power.
2. Turn the CASSIOPEIA over.
3. Slide the battery cover switch to BACK UP, and then remove the backup battery cover.



4. Remove the old battery.
5. Wipe off a new lithium battery (CR2032) with a dry cloth, and load it into the CASSIOPEIA.



Make sure the positive side is facing up, so you can see it.

6. Replace the backup battery cover.
7. Slide the battery cover switch back to LOCK.

6. DATA COMMUNICATIONS

6-1. General

Performing **Initial Setup** and **FULL RESET**, data saved in the unit will be deleted.
Performing **MEMORY BACKUP/RESTORE** and **CARD BACKUP TOOL** Operations described in this Chapter, save these data to PC and CF card before performing iInitial Setup and FULL RESET.
The following data communications are mainly applicable to E-125.

1. Between PC and E-125 using Activesync 3.1 software
2. Between CF card and E-125
3. Between Mobile phone and E-125
4. Between two E-125 units using IrDA
5. Between notebook-sized PC and E-125 using IrDA ports
6. Between E-125 (lower 20 pin connector) and Modem **JK-720MA** (U.S. and Canada only)

Refer to UNPACKING and GENERAL GUIDE in this manual concerning these communications.

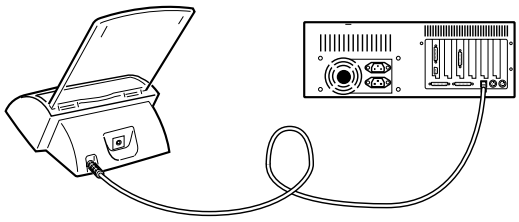
6-2. Connection to PC

Connecting the Cradle to a Computer

The cradle has a USB cable for connection to a personal computer. Connect the end of the cable to a USB port of the computer to which you want to connect.

Important ⚠

- See “Required System Configuration” on the later page for details on the type of computer system required for use with the cradle.



- The above illustration is one example of possible connection configurations. The locations and layouts of USB ports vary from computer to computer. See the documentation that comes with your computer for full details on connecting cables to it.
- Note that after connecting the cradle to your computer, you also need to make certain ActiveSync settings on your computer to enable data transfers. See the *ActiveSync Help* for details about setting up and using ActiveSync.

Using the CASSIOPEIA USB Cable

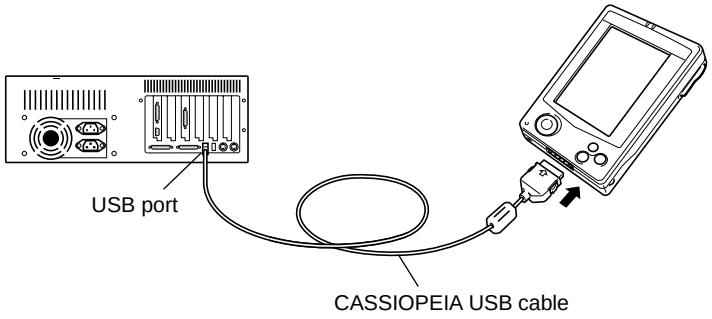
You can use the CASSIOPEIA USB cable to connect the CASSIOPEIA directly to a computer.

Important ⚠

- See below “Required System Configuration” for the computer system that is required for direct USB connection.
- The illustration below is just one possible connection configuration. The location and layout of USB ports vary from computer to computer. See the documentation that comes with your computer for full details on connecting cables to it.
- You must have ActiveSync installed on your computer in order to exchange data with the CASSIOPEIA over a USB connection. See the Pocket PC User’s Guide for information on installing and using ActiveSync.

To connect to a computer using the CASSIOPEIA USB cable

1. Plug the USB cable into the USB port of your computer.
2. Turn off your CASSIOPEIA.
3. Connect the other end of the USB cable to your CASSIOPEIA.



Required System Configuration

The minimum system configuration required for running ActiveSync ® 3.1 is described below.

ActiveSync ® 3.1 System Requirements

- Microsoft ® Windows ® 2000, Windows NT ® Workstation 4.0 with **Service Pack 3 or greater**, or Windows 95/98. (U.S. version)
- Desktop computer with a Pentium processor for Windows NT (166MHz required for Windows 2000)
- Desktop computer with a 486/66 DX or higher processor (Pentium P90 recommended) for Windows 95/98
- 16MB of memory for Windows 95/98 (more memory will give improved performance) or Windows NT Workstation 4.0 (32MB recommended for Windows NT, 64MB recommended for Windows 2000)
- Hard disk drive with 10 to 50MB of available hard disk space (actual requirements will vary based on selection of features and user’s current system configuration)
- Available 9 or 25-pin communications port (adapter required for 25-pin communication port), Infrared port, or USB port (available for Windows 95/98 or Windows 2000 only).
- One CD-ROM drive
- VGA graphics card or compatible video graphics adapter at 256 color or higher
- Keyboard
- Microsoft Mouse or compatible pointing device

PC Companion Device Requirements

- **Handheld PC**: Windows CE Handheld PC versions 2 and 3 with Windows CE Core System version 2.0 or greater
- **Palm-size PC**: All models and versions
- **Pocket PC**: All models and versions

Options for Windows 2000, Windows NT Workstation 4.0 or Windows 95/98

- Audio card/speakers for sound
- Microsoft Office 95 or Microsoft Office 97 or Microsoft Office 2000
- Modem for remote synchronization
- Ethernet LAN connection for remote synchronization

Requirements for Mobile Channels or Mobile Favorites Support

Microsoft Internet Explorer 4.0 or higher. Internet Explorer 5.0 is included on the CD, which requires 56-98MB of hard disk space.

Requirements for Microsoft Outlook ® 2000

Microsoft Outlook 2000 requires 153 MB of disk space for a full installation. 24 MB system RAM recommended.

Note

- Different minimum system requirements are required when using the applications included on the *CASSIOPEIA* Applications *CD-ROM*. See the documentation contained on the CD-ROM for full details.
- The cradle that comes with your CASSIOPEIA is designed for USB connection only.
  If your computer does not have a USB port, you will need to purchase the separate serial connection cradle (JK-512CR) or the serial connection cable (JK-580CA), which allows direct connection between the CASSIOPEIA and your computer's serial port.

Important ⚠

- When installing ActiveSync on a computer, check to make sure that the specified COM port number correctly indicates the serial port to which the cradle is connected.
- Some laptop and sub-compact computers with built-in infrared ports and modems are initially configured so the COM port is not always used as a serial port. In such a case, you must change the setting so the COM port is always used as a serial port.
  See the documentation that comes with your computer for full details on COM port numbers and settings.

6-3. Avtivesync 3.1 synchronization PC LINK software

Refer to **5. DATA TRANSFER** in the Service Manual for E-115 concerning the installation etc. USB (Universal Serial Bus) port on PC is applicable to ActiveSync 3.1 as described in **1.MAIN FEATURES** in this manual.

6-4. BACKUP/RESTORE using ActiveSync 3.1

Refer to **5. DATA TRANSFER** in the Service Manual for E-115 also.
You can perform this operation according to this chapter as well as **BACKUP/RESTORE** between PC and E-115.
Be sure to protect the important data from data disappearance and collapse using this function.

6-5. Card Backup Tool

Refer to CASIO TOKYO home page.
Prepare a CF card before this operation.

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- The operations described in this manual assume that you are already familiar with the basic operation of Windows CE. See the documentation that comes with Windows CE for full details on its operation.
- Sample displays shown in this manual may differ somewhat from the displays actually produced by the product.

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■ Introduction

Card Backup Tool lets you quickly and easily back up your CASSIOPEIA memory data to a memory card. Backed up data can be used to restore your system should it start to malfunction due to some data error.

Backed Up Data

Card Backup Tool backs up the following three types of data in CASSIOPEIA memory.

- **Files**
  Files are created using Notes, Pocket Excel, Pocket Word, and other applications and add-on programs. Files transferred from your desktop computer to the CASSIOPEIA are also backed up.
- **The Registry**
  The registry contains setup data for Windows CE and built-in applications.
- **Database Data**
  Database data is Calendar, Contacts, Tasks, and Inbox data.

Password

Backed up data can be protected by a password. By assigning a password to backed up data, you protect against unauthorized access because the data cannot be restored unless the correct password is entered first.

Time Required for Backup

Depending on how much data you are backing up (or restoring), the backup operation can take anywhere from about 10 seconds to a number of minutes. Backing up 4MB of data, for example, takes three or four minutes. To check how much data is on your system, tap , **Settings, System** tab and then **Memory**. On the dialog that appears, tap the Main tab. The value under **Storage** indicates how much data is stored in memory. See the Pocket PC User's Guide and CASSIOPEIA online help for more information.

Important! ⚠

The restore operation can take a very long time if you do not have enough storage memory allocated. When this happens, quit the restore operation, increase the size of the storage memory, and then try the restore operation again.

■ Using Card Backup Tool

This section provides details about the backup and restore operations you can perform using Card Backup Tool. Be sure to read the following precautions before using Card Backup Tool for either backup or restore.

Read this first!

- Always reset your CASSIOPEIA before backing up or restoring data. Make sure you perform a reset operation. Do not perform a full reset operation! See the separate Hardware Manual for information about how to reset your CASSIOPEA.
- Be sure to power your CASSIOPEIA with the AC adapter whenever performing a backup or restore operation.
- If main battery or backup battery power is low when you start a backup or restore operation, a warning message appears and the backup or restore operation is cancelled. Before starting a backup or restore operation, charge the battery pack or load new batteries.
- Do not perform any button or screen operations on the CASSIOPEIA while a backup or restore operation is in progress. Do not touch the CASSIOPEIA at all until the backup or restore operation is complete.
- Files and other data are automatically compressed before being stored in CASSIOPEIA memory. Make sure the memory card you are using for backup has enough unused space to store the data.

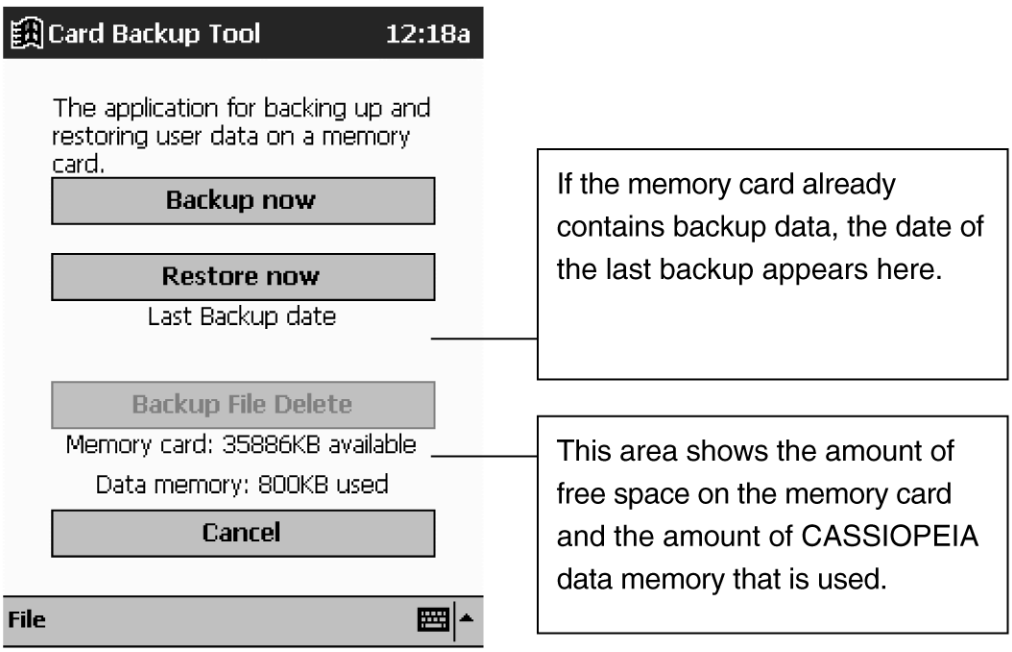
Backing Up Data

Use the following procedure to back up data. Make sure you read the precautions under "Read this first!" before starting.

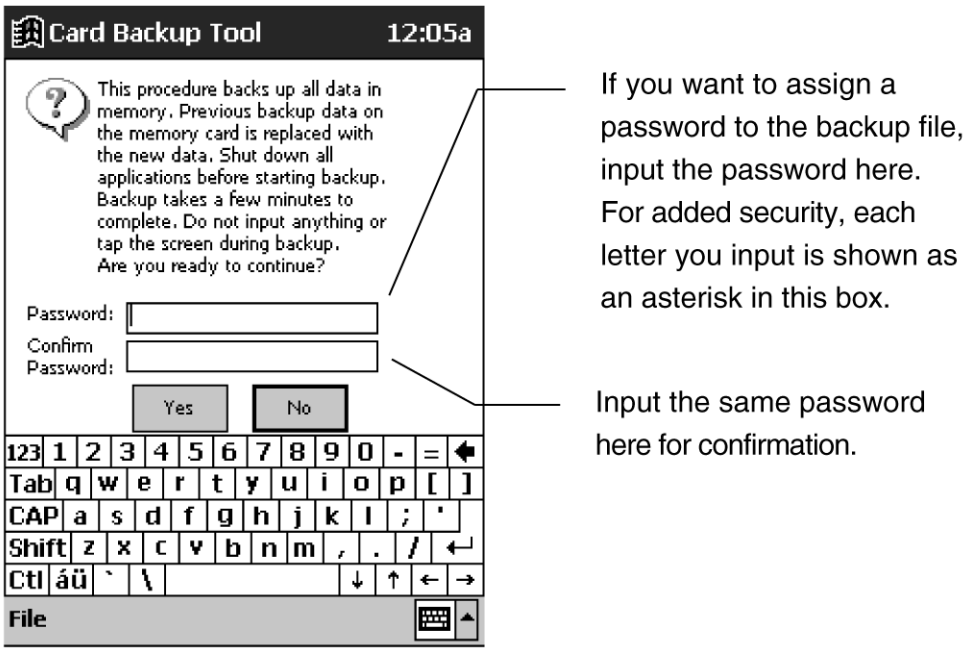
To back up data

1. Connect the AC adapter to your CASSIOPEIA.
2. Reset the CASSIOPEIA.
3. Insert a memory card with sufficient free space to store the backup data into the CompactFlash Card slot of the CASSIOPEIA.
4. Tap , **Programs, Utility,** and then **Card Backup**.

- This starts up Card Backup Tool and causes the dialog shown below to appear.


Card Backup Tool 12:18a
The application for backing up and restoring user data on a memory card.
Backup now
Restore now
Last Backup date
Backup File Delete
Memory card: 35886KB available
Data memory: 800KB used
Cancel
File
If the memory card already contains backup data, the date of the last backup appears here.
This area shows the amount of free space on the memory card and the amount of CASSIOPEIA data memory that is used.

5. Tap **Backup now**.
- This causes the dialog shown below to appear.


Card Backup Tool 12:05a
This procedure backs up all data in memory. Previous backup data on the memory card is replaced with the new data. Shut down all applications before starting backup. Backup takes a few minutes to complete. Do not input anything or tap the screen during backup. Are you ready to continue?
Password:
Confirm Password:
Yes
No
File
If you want to assign a password to the backup file, input the password here. For added security, each letter you input is shown as an asterisk in this box.
Input the same password here for confirmation.

- If you do not wish to assign a password, go to step 6 without inputting

6. Tap Yes to start the backup or **No** to close the dialog without backing up anything.
- The "Backup in Progress" dialog appears while the backup operation is being performed.
- The message "Backup complete!" appears on the display after the backup operation is complete.

7. After backup is complete, tap **OK** to quit Card Backup Tool.

Note

If the backup operation is interrupted or unsuccessful for any reason and there is a previous backup file on the memory card you are using, the previous file remains intact on the card.

To interrupt a backup operation

1. Tap the **Cancel** button on the message box that is on the screen while a backup operation is in progress.
- This causes the message "Do you really want to cancel?" to appear.

2. Tap **Yes** to cancel the backup operation or **No** to resume it.

Quitting Card Backup Tool

- Tapping the **OK** button on the dialog box that appears at the end of a backup operation automatically quits Card Backup Tool.
- To quit Card Backup Tool without performing a backup operation, tap the **Cancel** button.

Restoring Data

The following applies whenever you perform a restore operation.
- If the same file or registry data exists in both CASSIOPEIA memory and on the memory card, the data in CASSIOPEIA memory is overwritten with the data on the memory card.
- Any files or registry data in CASSIOPEIA memory that is not on the memory card is left as-is.
- Calendar, Contacts, Tasks, and Inbox data in CASSIOPEIA memory is all overwritten with the corresponding data from the memory card.

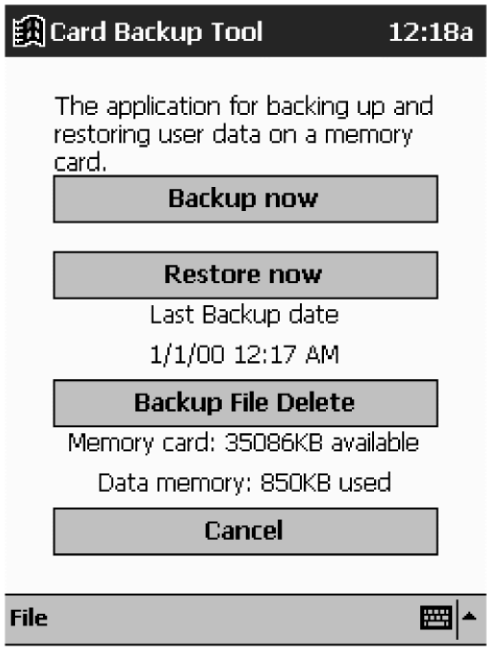
- To return CASSIOPEIA to the exact status it was when you backed up the data, perform a full reset before restoring the data. See the separate Hardware Manual for information about the full reset.

Use the following procedure to restore data. Make sure you read the precautions under "Read this first!" on page 33 before starting.

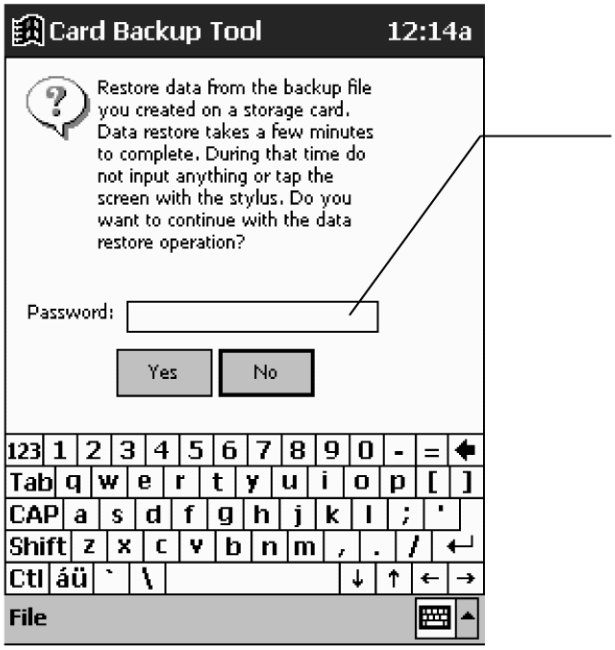
To restore data

1. Connect the AC adapter to your CASSIOPEIA.
2. Reset the CASSIOPEIA.
3. Insert the memory card that contains the data you want to restore into the CompactFlash Card slot of the CASSIOPEIA.
4. Tap , **Programs**, **Utility**, and then **Card Backup**.

- This starts up Card Backup Tool and causes the dialog shown below to appear.



5. Tap **Restore now**.
- This causes the dialog shown below to appear.


Card Backup Tool
12:14a
Restore data from the backup file you created on a storage card. Data restore takes a few minutes to complete. During that time do not input anything or tap the screen with the stylus. Do you want to continue with the data restore operation?
Password:
Yes
No
File

If the data is protected by a password, input the password here. If the data is not password protected, go to step 6 without inputting anything here.

6. Tap **Yes** to start the restore or **No** to close the dialog without restoring anything.
- The "Restore in Progress" dialog appears while the restore operation is being performed.
- The message "Restore complete!" appears on the display after the restore operation is complete.

7. After restore is complete, tap **OK** to quit Card Backup Tool.

8. Reset your CASSIOPEIA again.

Deleting a Backup File

You can use the following procedure to delete the backup files you created using Card Backup Tool. Delete a file when you no longer need it, when you want to free up space on a memory card, etc.

To delete a backup file

1. Insert the memory card that contains the backup file you want to delete into the CompactFlash Card slot of the CASSIOPEIA.

2. Tap , **Programs**, **Utility**, and then **Card Backup**.
- This starts up Card Backup Tool.

3. Tap **Backup File Delete**.
- This causes the dialog shown below to appear.

4. Tap **Yes** to delete the backup file or **No** to close the dialog without deleting anything.

6-6. Mobile communication

Refer to UNPACKING and GENERAL GUIDE in this manual.
Supports WAP, SMS, E-mail and Internet
when used in combination with a GSM mobile phone.

MTDS MTDS Web Site

*Internet access requires an account with an Internet service provider.

note
Communication systems differ from country-to-country. Contact your local CASIO retailer for full details about communications that are supported in your area.

Pocket Internet Explorer

Mobile E-Mailer

Mobile E-mailer 4:09p
Send
Subj: Re: Launch of New Cabi...
To: <anderson@xxx.yyy.zzz...
We hereby would like to invite you and your family to the grand launch of the "Horizon", the new cabin cruiser for which everyone has been waiting.
The event will be marked by a grand launch ceremony attended by our CEO, COO and other executives, as well as representatives from Blue Industries, the builder of the new Horizon. Other participants in this memorable event will
New Edit

Mail Setup Tool

Mail Setup Tool is a special application that simplifies troublesome settings you need to make in order to send and receive e-mail on your Pocket PC.

Bonus Software

Mail Setup Manager for CASSIOPEIA

This application lets you copy your computer's e-mail account settings to your Pocket PC for automatic configuration of the Pocket PC e-mail settings.

Bonus Software

6-7. Infrared Communication

The infrared port of this unit can be used to exchange data with another CASSIOPEIA, or with another device equipped with infrared communication capabilities. Remember that the two infrared ports must be pointed directly at each other when performing communications. The distance between the two infrared ports must be less than 20 cm.
See the *Pocket PC User's Guide* for full details on performing infrared communications.
For infrared data communications with another device, the other device must conform with IrDA 1.2 standards, and it must specifically support infrared data communication with a CASSIOPEIA.

Important ⚠

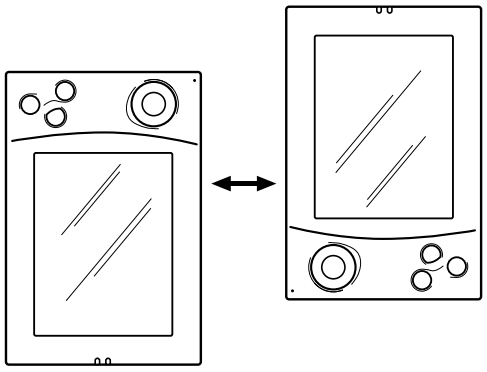
- Take care so either of the units does not move while infrared data communications are in progress.
- Infrared data communications may be impossible under strong sunlight or inverter type fluorescent lighting.
- Infrared data communication problems can be caused by the distance between the two ports, the angle between the two ports, outdoor sunlight, and low batteries.
- Dirt and dust on the infrared port surface can cause communications errors and other problems. Use a soft, dry cloth to wipe the port clean of dirt and dust.

Transfer Items Using Infrared

Using infrared (IR), you can send and receive information, such as contacts and appointments, between two Windows-powered Pocket PCs.

To send information

1. Switch to the program where you created the item you want to send and locate the item in the list. If you want to send more than one item, drag the stylus across the items you want to send.
2. Align the IR ports so that they are unobstructed and within a close range.



- The two infrared ports should be within about 20cm from each other.

3. Tap and hold the item, and tap **Send via Infrared** on the pop-up menu.

   You can also send items, but not folders, from File Explorer. Tap and hold the item you want to send, and then tap **Send via Infrared** on the pop-up menu.

To receive information

1. Align the IR ports so that they are unobstructed and within a close range.
2. Tap , **Programs**, and then **Infrared Receive**.

   You can also receive items from Tasks, Contacts, Calendar, and Notes by tapping **Tools** and then **Receive via Infrared** in list view.

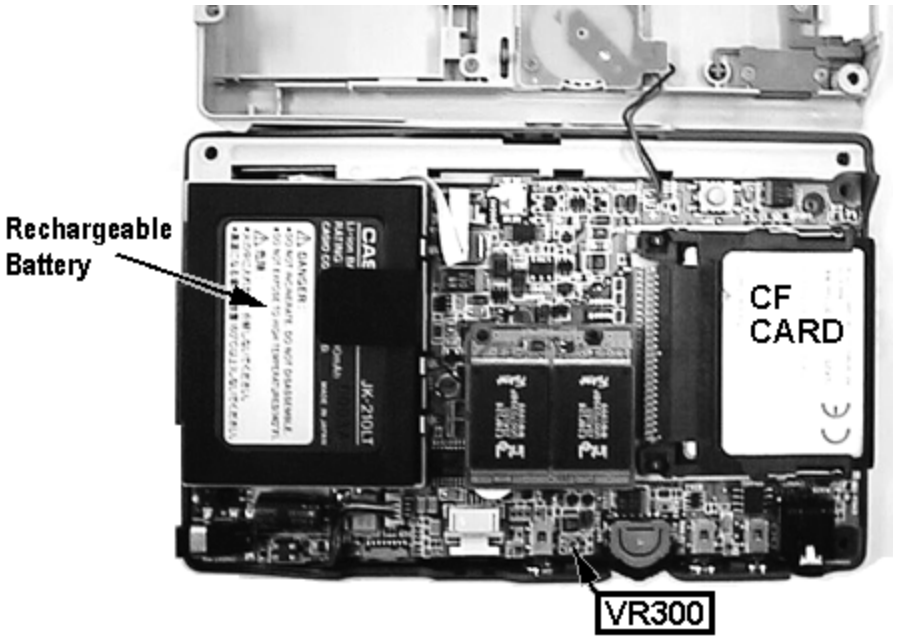
7. ADUSTMENT

There are two kinds of adjustments using Operation Check diagnostic program concerning E-125 as well as EM-500.
Refer to OPERATION CHECK in this manual concerning how to enter into Operation Check Mode.
The following two adjustments can not be performed without entering into Operation Check Mode.
For more information, refer to OPERATION CHECK in this manual.
It is recommended to perform these adjustments whenever replacing Main PC Board Assembly.

■ **Display Quality adjustment (TFT VCOM voltage adjustment)**

When flickers and vertical stripes appear in the screen display, try to perform this adjustment according to the following procedure.
Refer to OPERATION CHECK and DISASSEMBLY PROCEDURE in this manual.

1. Set AC adapter, the rechargeable battery and CF card installed the diagnostic program to the unit after disassembling the unit as shown below.



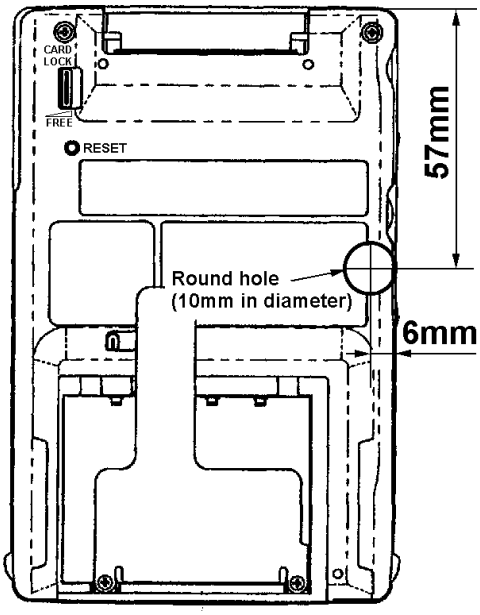
2. Enter into Operation Check Mode referring to **OPERATION CHECK** in this manual.
   Doing so, **Main Menu** for Operation Check will appear.
3. Tapping **8 COLOR BAR**, the following Color Bar check Menu display appears.

   **** COLOR BAR ****

   1 Contrast
   2 Scroll
   3 GRAY

4. Tapping **3 GRAY**, all gray display appears on the screen.
   If abnormal displays (flicker, vertical stripes and so on) are detected, change **VCOM** voltage rotating above variable resistor **VR300** using a ceramic screwdriver (minus/ 1.8 mm width) so that these abnormal displays disappear.
   VR300 can be supplied as one of the spare parts. Refer to **PARTS LIST** in this manual.
   Refer to page 70 in the Service Manual for **E-115** concerning **VCOM**.
   VCOM: Common electrode voltage for TFT LCD pixel.

NOTE:
Although this adjustment is described in OPERATION CHECK in this manual, It is recommended to adjust after assembling the dummy lower case assembly added a hole (approximately 10 mm in diameter) as shown to the right.



■ **Adjustment to correct (compensate) AD converter error voltage**

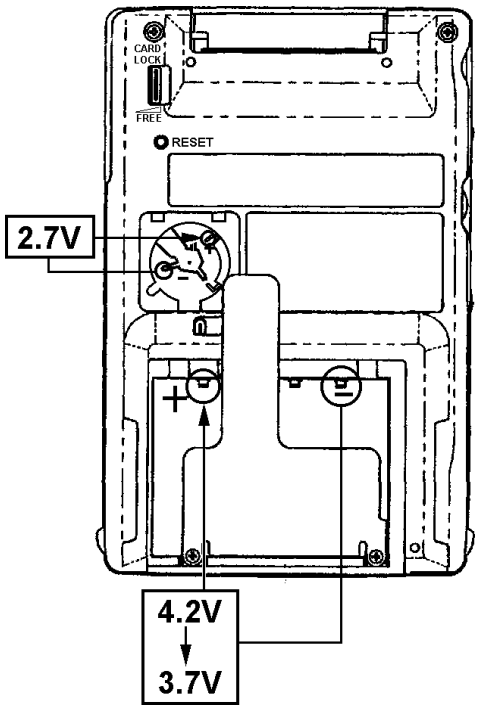
This is the adjustment to correct or compensate AD converter error voltage/ digital data.
Generally speaking, the differential and linear errors exist in the output digital data and voltage which are passed AD/ DA converter.
When calibration for touch panel, battery voltage detection and so on are not correctly performed,try to perform this adjustment.

Important ⚠

This adjustment for the main PC Board Assembly for the spare parts has not been performed in the factory.
Therefore, be sure to perform this adjustment whenever you replace the main PC Board Assembly.
It is recommended to prepare two DC voltage stabilizers for Main and sub (back up) power supplies.
Perform this adjustment according to the following procedure.

1. While supplying powers as shown to the right, display **Main Menu** for the operation check.
   * Remove AC Adapter.
   * Slide the battery cover switch to LOCK position.

2. Make the voltage power supply added to the main battery terminal 4.2V ± 0.05V.
   Then, make the voltage power supply added to the back up battery terminal 2.7V ± 0.05V.
   If turning off the unit power, stop to supply power for the back up battery at first, then for the main battery. After performing **Initial Setup**, display **Main Menu** for the operation check again.



3. Tapping 9 voltage Write, the following display appears.
   ***** <AD Revision Value Write> *****
   <Max Level Write>

   Voltage Write-> Contacts Key
   Escape -> ON Key

4. Pressing **Contacts** button, the following display appears.
   ***** <AD Revision Value Write> *****
   <Max Level Write>
   AD Value Read! 0x8...
   <Min Level Write>

   Voltage Write-> Contacts Key
   Escape -> ON Key

   If the unit can not read the voltage 4.2V correctly, "**No Good. Please retry!!**" message will appear. Note that the unit can not be progressed in the next stage whenever this message appears.

5. Make the voltage power supply added to the main battery terminal 3.7V ± 0.05V.
   Then, press **Contacts** button again.
   Doing so, the following display appears.
   ***** <AD Revision Value Write> *****
   <Max Level Write>
   AD Value Read! 0x8...
   <Min Level Write>
   AD Value Read! 0x8...
   <SUB Level Write>

   Voltage Write-> Contacts Key
   Escape -> ON Key

6. Pressing **Contacts** button again, the following display appears.
   ***** <AD Revision Value Write> *****
   <Max Level Write>
   AD Value Read! 0x8...
   <Min Level Write>
   AD Value Read! 0x8...
   <SUB Level Write>
   AD Value Read! 0x8...

   Write Data Value
   Max=0x... Sub=0x...
   Min=0x...
   ----------→ Test END
   Push Action Key

7. Pressing **Action Control** button, the following display appears along with **Main Menu** display.
   AD Code=OOOOO
   CPROG Rev.1.01 for JX-650

   If missed, the following # displays appear instead of **O**.
   AD Code=# # # # #
   CPROG Rev.1.01 for JX-650

If this display appears, be sure to try to perform these adjustments again.
After turning off the unit power, stop to add the powers to the unit from DC voltage stabilizers After setting the rechargeable battery, back up battery and AC Adapter to the unit again, perform **Initial Setup**, then display **Main Menu**.

8. OPERATION CHECK

8-1. Preparation

1. E-125 (Prepare two units to perform IrDA communication check.)
2. Compact Flash Memory Card
3. Rechargeable battery pack CGP-E/104A (Refer to **PARTS LIST**.)
4. AC adapter (AD-C59200U), or both AC adapter (AD-C59200G) and AC power cord (CBL-K799-AC-EU etc.) (Refer to **PARTS LIST**.)
5. Cradle (Refer to **PARTS LIST**.)
6. PC installed ActiveSync 3.1
7. Diagnostic program files for E-125 : **diag.exe** and **diagboot.exe**
   (This file name "**diag.exe**" is the same as ones for E-100/ E-105/ E-115/ EM-500 etc. Take care not to confuse.)
9. Ordinary stereo earphone (16Ω)
10. Two DC Power Supply Stabilizers

NOTES:

* Be sure to make back-up copies of all data in the unit before repair using BACKUP/ RESTORE function in ActiveSync 3.1 software because **FULL RESET** must be performed to finish or abort this operation check.
  Diagnostic program file will be saved in D-RAM assembled onto the main PC board.
  Therefore, performing **FULL RESET** after this check, this program should be deleted.
  These program files (**diag.exe/ diagboot.exe/ CASIO_JXdiag.exe**) will be supplied along with the Service Manual for E-125.
* The unit may be locked during the installation, this check or the other operation.
  If this lock occur, try to perform **RESET** operation.

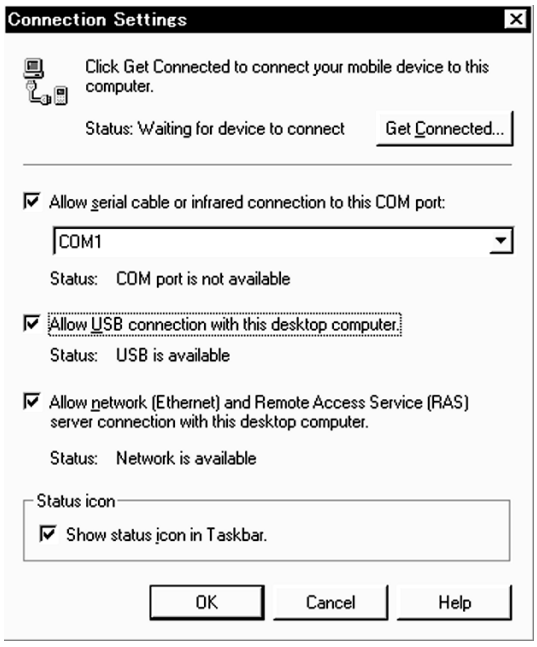
8-2. How to install the diagnostic program

There are two ways to install the diagnostic program.

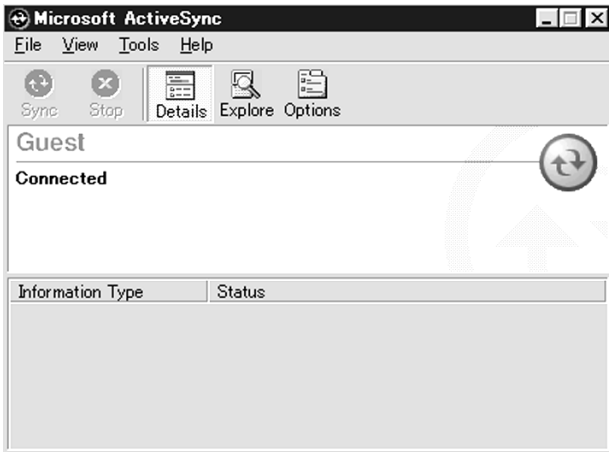
8-2-1. Installation in CF Card

Using CF card installed the diagnostic program, OPERATION CHECK can be performed without PC and the cradle after installation.
To make this CF card installed the diagnostic program, at first, it is necessary to install the diagnostic program to CF card according to the following procedure.

1. Insert a CF card into Card slot of the unit.
   Before inserting CF card, be sure to slide CARD LOCK switch to **FREE** position.
2. Connect a cradle and PC installed ActiveSync 3.1.
3. Set the unit to this cradle. And then, open ActiveSync 3.1.
4. Selecting **File**, then **Connection Settings...**, the dialog box shown to the right appears.
   It is recommended that you enter "V" marks in the four squires in the right dialog box to be able to use USB, RS-232C COM port etc on PC.
5. After doing so, perform "**Get Connected...**" procedure. "**Get Connected...**" procedure may automatically start.
6. You had better choose "**No**" for Set Up a Partnership.


Connection Settings
Click Get Connected to connect your mobile device to this computer.
Status: Waiting for device to connect
Get Connected...
Allow serial cable or infrared connection to this COM port:
COM1
Status: COM port is not available
Allow USB connection with this desktop computer.
Status: USB is available
Allow network (Ethernet) and Remote Access Service (RAS) server connection with this desktop computer.
Status: Network is available
Status icon
Show status icon in Taskbar.
OK
Cancel
Help

7. After that, this connection procedure will be completed.
8. After this procedure is completed, the display shown to the right appears.
9. After clicking **Explore** icon in the right dialog box, click **My Pocket PC** icon.
10. Doing so, **Storage Card** holder icon will appears.
    "Storage Card" holder indicates CF card. If CF card is not inserted into the slot, this holder will not appear.
11. After clicking this icon, make a new holder named **jx650diag**.
12. Make a new holder named **casioconfidential** in **jx650diag** holder.
    Perform these spellings precisely.
    Otherwise, the installation of the diagnostic program can not be performed.
13. Enter **diag.exe** file in this **casioconfidential** holder.
    Total directory is as follows;
    Storage Card>jx650diag>casioconfidential>diag.exe
14. Doing so, the installation of the diagnostic program to CF card and D-RAM in the unit starts automatically.
15. While performing this installation, the display shown to the right will appear.



16. Completing this installation, the display shown to the right will appear.
    * Once the diagnostic program is installed in CF card and D-RAM in the unit, this program is not deleted even if **RESET** operation is performed.
17. After making **diag** holder in **Storage Card** holder, enter **diagboot.exe** file into this **diag** holder. Total directory is as follows;
    Storage Card>diag>diagboot.exe

Note: diagboot.exe file is needed to make the diagnostic program development more easier. This file may be applicable to all units adopted CF card in future.

18. Performing the following operation with the unit, confirm that the diagnostic program has been installed in CF card according to the following procedure.
    Tapping **Start, Programs, File Explore, My documents, My Device, Storage Card, jx650diag**, and then **casioconfidential** holder using a stylus, **diag** icon will appear.
    If **diag** icon appears, the diagnostic program is installed in CF card.
    After tapping **casioconfidential**, tap **Storage Card** holder.
    Tapping **Storage Card**, confirm that there is a **diagboot** icon in **Storage Card** holder.
    Tapping this **diag** icon, **Main Menu** for this Operation Check display appears.

It is recommended to boot Operation Check using above operations.

8-2-2. Direct Installation in Only D-RAM in the unit without CF card

Using the following procedure, you can install the diagnostic program in D-RAM in the unit without CF card.

1. Perform **2~9** in the procedure of **8-2-1**.
2. Clicking **Windows** holder, open this holder.
3. Enter **CASIO_JXdiag.exe** and **diagboot.exe** files into this holder.
4. Doing so, the installation of the diagnostic program to D-RAM in the unit starts automatically.

* Once the diagnostic program is installed in D-RAM in the unit, this program is not deleted even if **RESET** operation is performed.

5. Performing the following operation with the unit, confirm that the diagnostic program has been installed in D-RAM in the unit.
   Tapping **Start, Programs, File Explore, My documents, My Device**, and then **Windows** holder using a stylus, **CASIO_JXdiag** and **diagboot** icons will appear in Windows holder.
   If **CASIO_JXdiag** and **diagboot** icons appears, the diagnostic program is installed in D-RAM.
   Tapping this **CASIO_JXdiag** icon, **Main Menu** for this Operation Check display appears.

Operation Check can be booted using above operation also.

8-3. How to delete the diagnostic program

If necessary, delete the diagnostic program in CF card and D-RAM in the unit using the following procedure.

8-3-1. How to delete the diagnostic program in CF card

1. After connecting the unit set CF card and PC using ActiveSync 3.1, be sure to delete **diag.exe** file in **casioconfidential** holder.
   Never delete **jx650diag** or **casioconfidential** holder.
   Refer to **8-2-1** concerning above connection for detail.
2. Performing the following operation with the unit, confirm that the diagnostic program has been deleted in CF card according to the following procedure.
   Tapping **Start, Programs, File Explore, My documents, My Device, Storage Card, jx650diag**, and then **casioconfidential** using a stylus, **diag** icon will disappear.
   If diag icon disappears, the diagnostic program in CF card is deleted.

8-3-2. How to delete the diagnostic program in D-RAM in the unit

There are two ways to delete the diagnostic program in D-RAM.

1. After connecting the unit and PC using ActiveSync 3.1, delete **CASIO_JXdiag.exe** and **diagboot** files in **Windows** holder.
   Refer to **8-2-1** concerning above connection for detail.
2. Perform **FULL RESET** for the unit.
   To perform **FULL RESET**, press **RESET** button while holding down **Power** button, then operate the unit according to the messages on the screen.

* Performing the following operation with the unit, confirm that the diagnostic program has been deleted in D-RAM in the unit.
   Tapping **Start, Programs, File Explore, My documents, My Device**, and then **Windows** using a stylus, **CASIO_JXdiag** and **diagboot** icons will disappear in **Windows** holder.
   If **CASIO_JXdiag** and **diagboot** icons disappears, the diagnostic program in D-RAM is deleted.

8-4. Operation Check

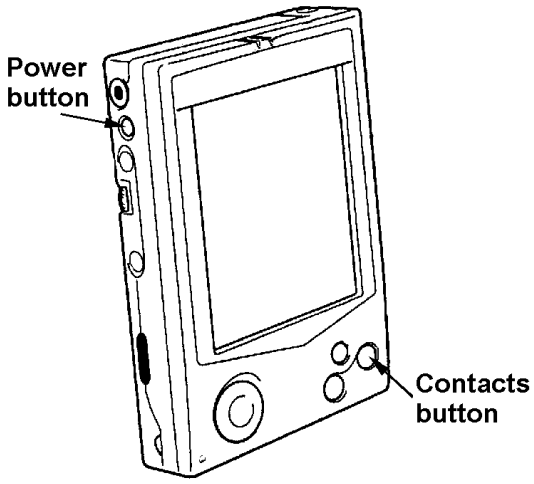
8-4-1. How to enter into Operation Check Mode

It is recommended to perform **FULL RESET** with the unit to delete the data saved in D-RAM before this check.

To enter into this check Mode, perform the operation described in item **18** of **8-2-1** or item **7** of **8-2-2** after installation of diagnostic program.

Or, after the installation of diagnostic program using the operation described in **8-2-2**, press **Contacts** button over 3 seconds while holding down **Power** button until below Operation Check **Main Menu** appears.

After performing one of the operations described above, the following **Main Menu** display for Operation Check appears on the screen.




```
    **  Main Menu **

 1 DISPLAY
 2 TOUCH PANEL
 3 MEMORY
 4 SERIAL
 5 POWER CONTROL
 6 AUDIO
 7 Others
 8 COLOR BAR
 9 VOLTAGE Write



AD Code = #####
CPROG Rev. 1.01 for Jx-650
```

Note: Generally, diagnostic program revision No. may be changed without prior notice in future due to mass production convenience.

In case of E-125 unit, It is recommended not to pull out CF card installed the diagnostic program during this check if using this CF card.

8-4-2. Operation Check

If the unit is locked during this check, enter into this check mode again after perform RESET or FULL RESET operation.

8-4-2-1. Display Check

1. Tapping above **1 DISPLAY** on the screen using a stylus, the red screen appears.
2. Tapping the screen, the green screen appears.
3. Tapping the screen again, the blue screen appears.
4. Tapping the screen again, the white frame display appears.
5. Tapping the screen again, the black frame display appears.
6. Tapping the screen again, no display appears.
7. Tapping the screen again, **Main Menu** display appears.

8-4-2-2. Touch Panel Check

1. Tapping above **2 TOUCH PANEL** on the screen using a stylus, the following Touch Panel Check Menu appears.

   **** Touch Panel ****

   1 Case
   2 Points
   3 Cross

2. Tapping **1 Case, "Case** ---→ **OK"** display appears.
   Pressing **Action Control** button, display Touch Panel Check Menu again.
   Generally speaking, pressing **Action Control** button, prior Menu or Display can be recovered during **Operation Check**.
3. Tapping **2 Points**, four cross marks appears near four corners in the screen.
   If succeeded to tap the center of the cross mark, its cross mark will disappear.
   Tap the centers of these cross marks until all cross marks disappear.
   After that, "**Touch Panel** ---→ **OK**" display appears.
4. Pressing **Action Control** button twice, **Main Menu** display appears.

* If performing **2 Points** check, it is unnecessary to perform **3 Cross** check.

8-4-2-3. Memory Check

1. Tapping **3 MEMORY**, the following Memory Check Menu display appears.

   **** MEMORY ****

   1 ROM CHECK SUM(32MByte)
   1' ROM CHECK SUM(16MByte)
   2 ROM BUS SUM(32MByte)
   2' ROM BUS SUM(16MByte)
   3 ROM TYPE
   4 RAM TEST
   5 RAM LOOP
   6 RAM R/W TEST

2. Tapping **1 ROM CHECK SUM(32MByte)**, the following display appears.

   **** ROM CHECK SUM ****
   base addr. sum value
   SUM 1 (be000000) = xxxx
   SUM 2 (be000002) = xxxx

   ROM CHECK SUM ... end

   Above hexadecimal digits (numbers) will be modified without prior notice in response to the modifications for OS etc..
   Pressing **Action Control** button, Memory Check Menu display appears again.
3. Tapping **3 ROM TYPE**, the following display appears.

   **** ROM TYPE ****

   Flash ROM

   ROM Type CHECK ... end

   Mask ROM may appear instead of above **Flash ROM.**
   Pressing **Action Control** button, Memory Check Menu display appears again.

4. Tapping **4 RAM TEST**, the following display appears.
   The other displays may appear.

   **** RAM CHECK ****

   - RAM CHK OK -

   Pressing **Action Control** button, Memory Check Menu display appears again.

5. Tapping **6 RAM R/W TEST**, the following display appears.

   **** RAM CHECK ****

   - RAM DATA WRITE -
   Write ... end ActionKey PUSH!

6. Pressing **Action Control** button according to above message, the following display appears.

   **** RAM CHECK ****

   - RAM DATA WRITE -
   Write ... end ActionKey PUSH!

   -- RAM DATA READ --

   -- RAM CHK OK --

   Pressing **Action Control** button twice, **Main Menu** display appears again.

8-4-2-4. Serial ports Check (Communication Check)

Try to communicate with PC using ActiveSync 3.1 after connecting the unit to PC using the cradle concerning USB and RS232C checks.
Because, special jigs are needed to perform USB checks by this diagnostic program.

1. Tapping **4 SERIAL**, the following Serial port Check Menu display appears.

   **** Serial ****

   1 Loop Back <RS232C Ck>
   2 Send / Receive <RS232C Ck>
   3 Interactive <IrDA Ck>
   4 Send / Receive <IrDA Ck>
   5 Loop Back2
   6 USB Check

2. Prepare another unit to perform IrDA communication check.
   Display Serial port Check Menu with another unit as well as the checking unit.
3. Tapping **4 Send / Receive <IrDA Ck>** with both units, the following displays appear.
4. Tap **2 Receive data (MAX Baudrate)** with another unit, then tap **1 Send data (MAX Baudrate)** with the checking unit. Doing so, the following displays appear.
   In case of the checking unit;
   <Send mode>
   In case of another unit;
   <Receive mode>
   HHHHHHHHHHHHHHHHHH
   HHHHHHHHHH.....
   The letter "**H**" will continue to appear one after another.
5. To stop this data communication, press **Action Control** buttons with both units.
6. Exchanging the checking unit for another unit, perform operations of above 3~5.
   Press **Action Control** buttons few times with both units to display **Main Menu**.
   Turn off another unit power after performing **FULL RESET**.

8-4-2-5. Audio Check

1. Tapping **6 AUDIO**, the following Audio check Menu appears.

**** Audio ****

1 0.5kHz
2 1kHz
3 2kHz
4 LR-Channel
5 Record

2. Tapping **1 0.5kHz**, 0.5kHz sound is emitted.
3. Tapping **2 1kHz** after pressing **Action Control** button, 1 kHz sound is emitted.
4. Tapping **3 2kHz** after pressing **Action Control** button, 2 kHz sound is emitted.
   Press Action Control button again.
5. After setting a stereo earphone to the unit, tap **4 LR-Channel**.
   Doing so, the following sound can be heard from its earphone with stereo.
   "**Right channel**" from the right
   "**Left channel**" from the left

Press Action Control button again.

8-4-2-6. Others Check

1. Tapping **7 Others**, the following Others check Menu display appears.

**** Others ****

1 Switch
2 Keyboard RAMDOM
3 Disp Loop
4 BackLight

2. Tapping **1 Switch**, the following display appears and Red light is flickered from the right LED.

VDET1B	**OFF**
VDET2	**OFF**
VDET3	**OFF**
VDETS	**OFF**
VDETCF	**OFF**
AC Adapter	**USED**
Cover	**CLOSED**
Charge	**ON**
Audio Jack	**OFF**

3. Removing the back up battery, **VDETS** will become **ON**.
   Set its back up batter to the unit again.
4. Removing AC Adapter, **AC Adapter** will become **NOT USED**.
   Connect AC Adapter to the unit again.
5. Connect a ordinary earphone to the unit.
   Doing so, **Audio Jack** will become **ON**.
   Remove this earphone.
6. Sliding the Battery Cover Switch to **MAIN** position, **Cover** will become **OPEN**.
7. Pressing **Action Control** button, Others check Menu display appears again.
8. Tapping **2 Keyboard RANDOM**, the following display appears.

**** Keyboard Random ****

Pressing any button except power button, Key name corresponded to the pressed button appears on the screen. Pressing **Power** button finally, Others check Menu display appears again.

9. Tapping **4 BackLight**, for example, the following display appears.

439

Another number may appear.

10. While holding down the downward key in the cursor button, display on the screen becomes dimmer, then lighter suddenly.
Pressing **Action Control** button twice, **Main Menu** appear.

8-4-2-7. Color Bar Check (including a display adjustment)

Refer to ADJUSTMENT in this manual concerning below VCOM adjustment.

1. Tapping **8 COLOR BAR**, the following Color Bar check Menu display appears.

**** COLOR BAR ****

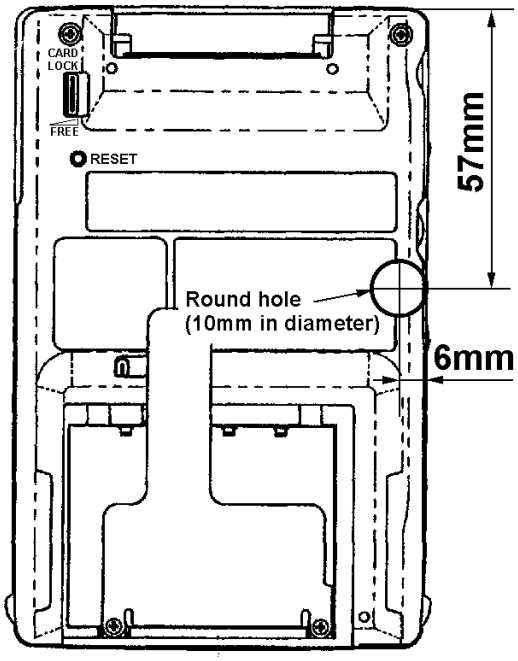
1 Contrast
2 Scroll
3 GRAY

2. Tapping **1 Contrast**, the following color bar display appears.

RED
GREEN
BLUE
BLACK
WHITE

Pressing **Action Control** button, Color Bar check Menu display appears again.
Even if tapping **2 Scroll**, this unnecessary check can not be performed because this check becomes unnecessary.

3. Tapping **3 GRAY**, all gray display appears on the screen.
If abnormal displays (flicker, and so on) are detected, change **VCOM** voltage rotating the variable resistor **VR300**. Refer to page 70 in the Service Manual for **E-115** concerning **VCOM**.
VCOM: Common electrode voltage for TFT LCD pixel.
Refer to **PARTS LIST** concerning **VR300**.
To perform this adjustment, it is recommended to adjust after assembling the dummy lower case to which a round hole is added as shown below.
Refer to the item 24 of **PARTS LIST** and **EXPLODED VIEW** concerning the lower case.
Pressing **Action Control** button twice, **Main Menu** display appears.



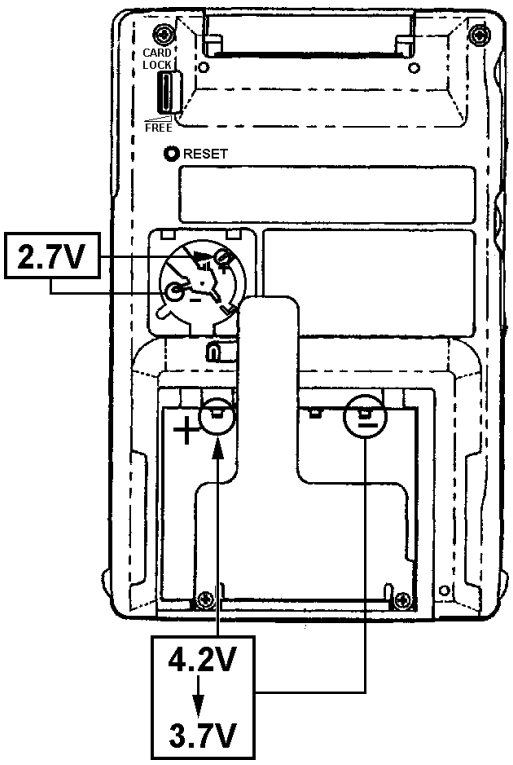
8-4-2-8. Setting (Adjusting) DC voltage to AD converter

Refer to ADJUSTMENT in this manual concerning this voltage adjustment.

The following operation are not only for Check, but also for setting (adjusting) for DC voltage to AD converter in CPU.
When calibration for touch panel, battery voltage detection and so on are not correctly performed, try to check and perform these settings (adjustments).
It is recommended to prepare two DC voltage stabilizers for Main and sub (back up) power supplies.

Important ⚠

These settings (adjustments) for the main PC Board Assembly has not been performed in the factory. Therefore, be sure to perform this setting (adjustment) whenever you replace the main PC Board Assembly.



1. While supplying powers as shown to the right, display **Main Menu** for the operation check.
   * Remove AC Adapter.
   * Slide the battery cover switch to LOCK position.

2. Make the voltage power supply added to the main battery terminal 4.2V ± 0.05V.
   Then, make the voltage power supply added to the back up battery terminal 2.7V ± 0.05V.
   If turning off the unit power, stop to supply power for the back up battery at first, then for the main battery. After performing **Initial Setup**, display **Main Menu** for the operation check again.

3. Tapping **9 voltage Write**, the following display appears.
   ***** <AD Revision Value Write> *****
   <Max Level Write>

   Voltage Write-> Contacts Key
   Escape -> ON Key

4. Pressing **Contacts** button, the following display appears.
   ***** <AD Revision Value Write> *****
   <Max Level Write>
   AD Value Read! 0x8...
   <Min Level Write>

   Voltage Write-> Contacts Key
   Escape -> ON Key

   If the unit can not read the voltage 4.2V correctly, "**No Good. Please retry!!**" message will appear. Note that the unit can not be progressed in the next stage whenever this message appears.

5. Make the voltage power supply added to the main battery terminal 3.7V (0.05V.
   Then, press **Contacts** button again.
   Doing so, the following display appears.

***** <AD Revision Value Write> *****
<Max Level Write>
AD Value Read! 0x8...
<Min Level Write>
AD Value Read! 0x8...
<SUB Level Write>

Voltage Write-> Contacts Key
Escape -> ON Key

6. Pressing **Contacts** button again, the following display appears.

***** <AD Revision Value Write> *****
<Max Level Write>
AD Value Read! 0x8...
<Min Level Write>
AD Value Read! 0x8...
<SUB Level Write>
AD Value Read! 0x8...

Write Data Value
Max=0x... Sub=0x...
Min=0x...
----------→ Test END
Push Action Key

7. Pressing **Action Control** button, the following display appears along with **Main Menu** display.
   AD Code=OOOOO
   CPROG Rev.1.01 for JX-650

   If missed, the following # displays appear instead of **O**.
   AD Code=# # # # #
   CPROG Rev.1.01 for JX-650

   If this display appears, be sure to try to perform these settings (adjustments) again.
   After turning off the unit power, stop to add the powers to the unit from DC voltage stabilizers
   After set the rechargeable battery, back up battery and AC Adapter to the unit again, perform **Initial Setup**, then display **Main Menu**.

----- END ----

After removing CF card saved the diagnostic program, perform FULL RESET.

9. TROUBLE SHOOTING

Before assuming malfunction and contacting expert when experiencing operational problems, be sure to check the following information as well as the troubleshooting section of the *Pocket PC User's Guid*e first.

Nothing happens when the [Power] button is pressed.	
Possible Cause	**Recommended Action**
Main battery is weak.	Charge the battery pack.
Internal malfunction	Reset the unit. If resetting the unit does not correct the problem, perform a full reset (memory initialize).*

Operation is disabled when the AC adapter is connected.	
Possible Cause	**Recommended Action**
Main battery is weak.	Charge the battery pack.
The unit is not mounted on the cradle correctly.	Mount the unit on the cradle correctly.

Replacing the main battery caused malfunction.	
Possible Cause	**Recommended Action**
Main battery is not loaded correctly.	Remove and then reload the main battery. • Make sure the positive (+) and negative (–) poles are oriented correctly.
The battery replacement procedure was not followed correctly.	Perform a full reset (memory initialize).* • If the above action does not solve the problem, remove the main battery and contact with experts.

Rechargeable battery pack life is very short after each charge.	
Possible Cause	**Recommended Action**
Battery pack is damaged or has reached the end of its service life.	Purchase a new battery pack.

The low backup battery message continues to appear even after replacement of the backup battery.	
Possible Cause	**Recommended Action**
The backup battery is upside down.	Remove the backup battery, turn it over, and reload it.
The backup battery was loaded before the main battery.	Remove the backup battery, and reload it.
Power was left on while the battery pack was replaced.	Turn power off and then back on again.

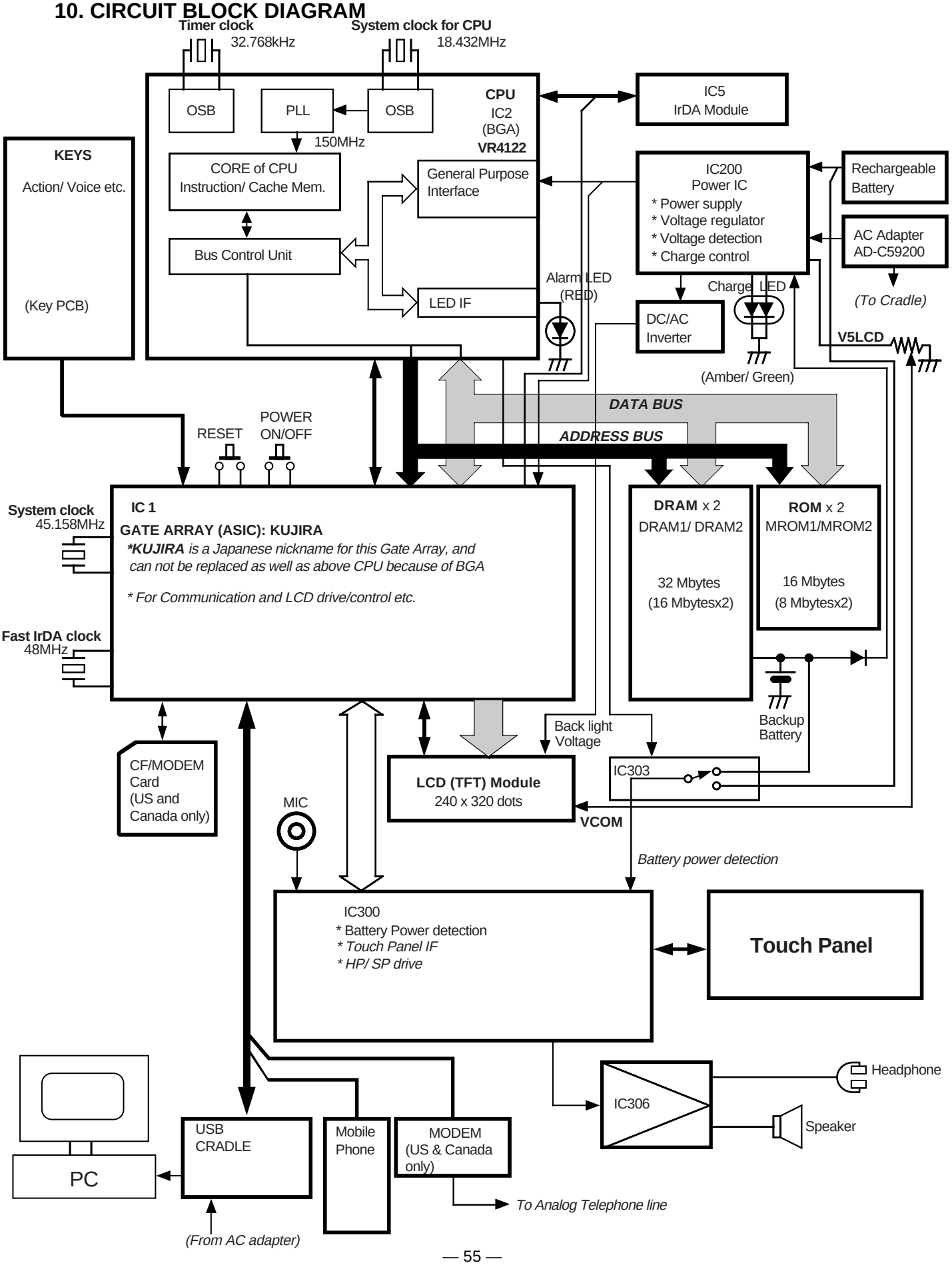
Nothing happens when the touch screen is touched.	
Possible Cause	**Recommended Action**
The touch screen is out of calibration.	Recalibrating the touch screen.
Static electricity or some other problem has caused the touch screen to malfunction.	Reset the unit.
The touch screen is damaged.	Contact your original dealer or an expert.

The screen is locked up.	
Possible Cause	**Recommended Action**
Internal malfunction	Reset the unit. If resetting the unit does not correct the problem, perform a full reset (memory initialize).*

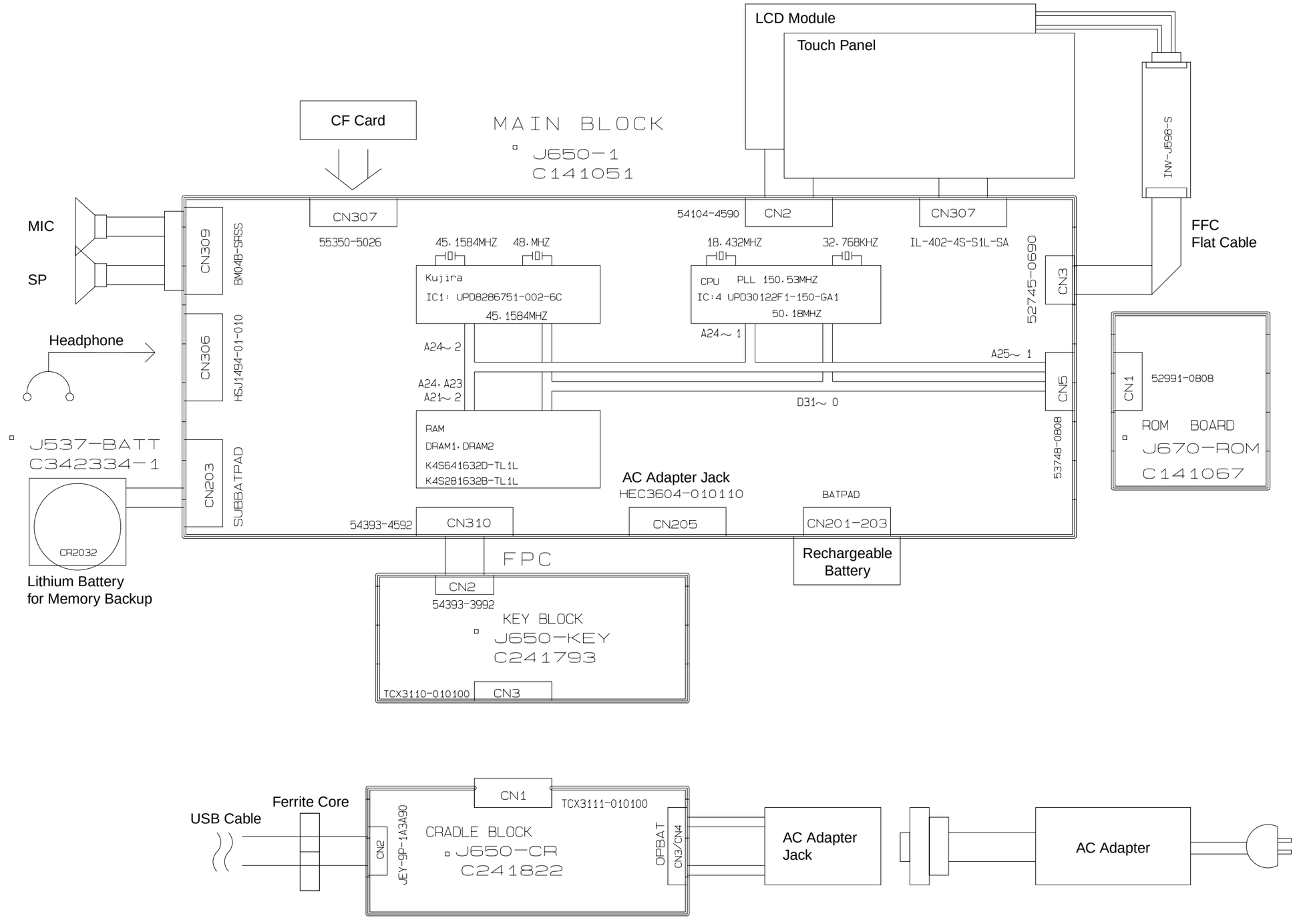
A message about a data error is on the screen.	
Possible Cause	**Recommended Action**
Internal malfunction	Follow the instructions that appear on the screen.

* Perform the procedure on the page 24 when the full reset (memory initialize) does not correct the problem.

10. CIRCUIT BLOCK DIAGRAM

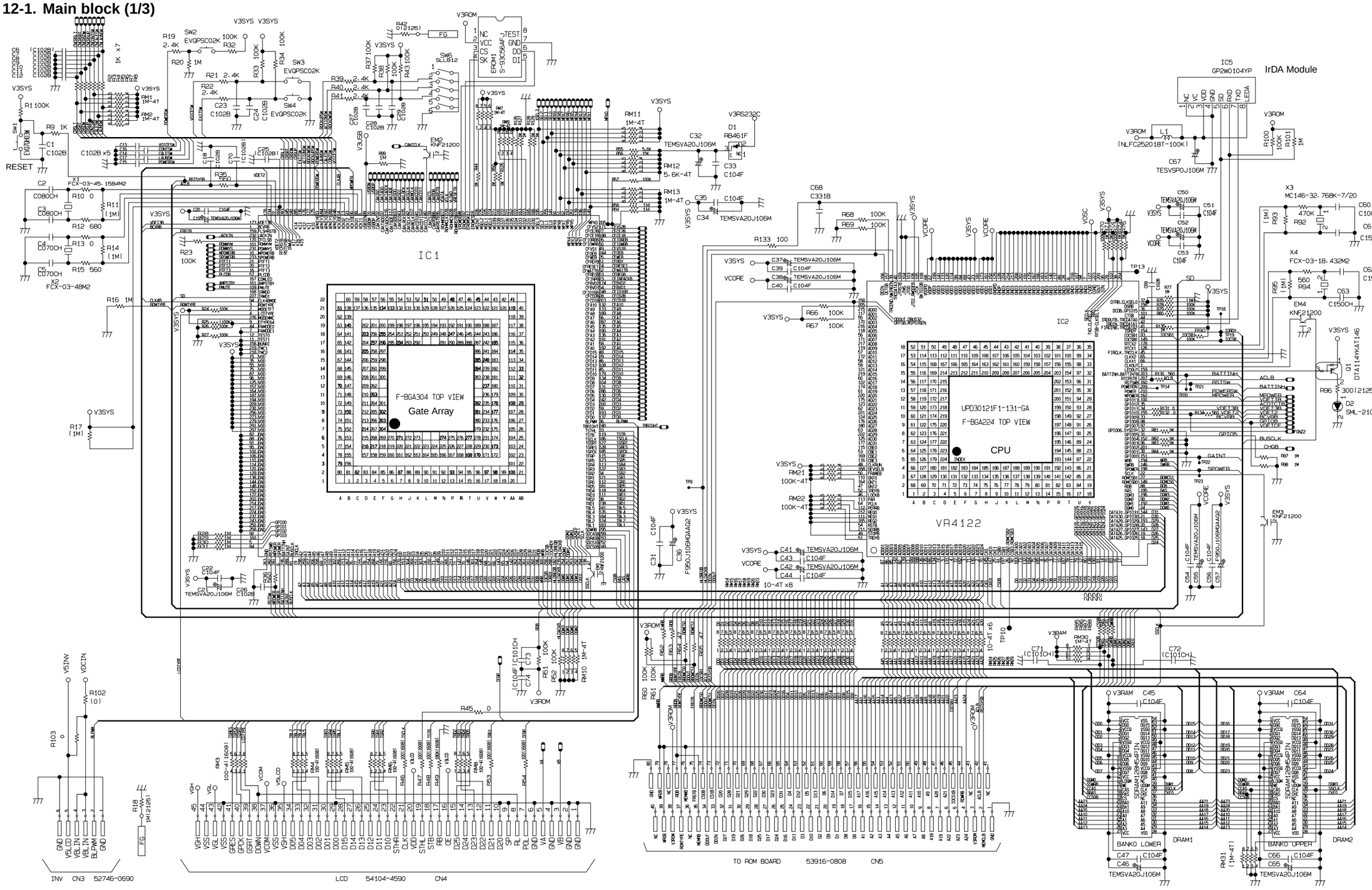


11. WIRING DIAGRAM

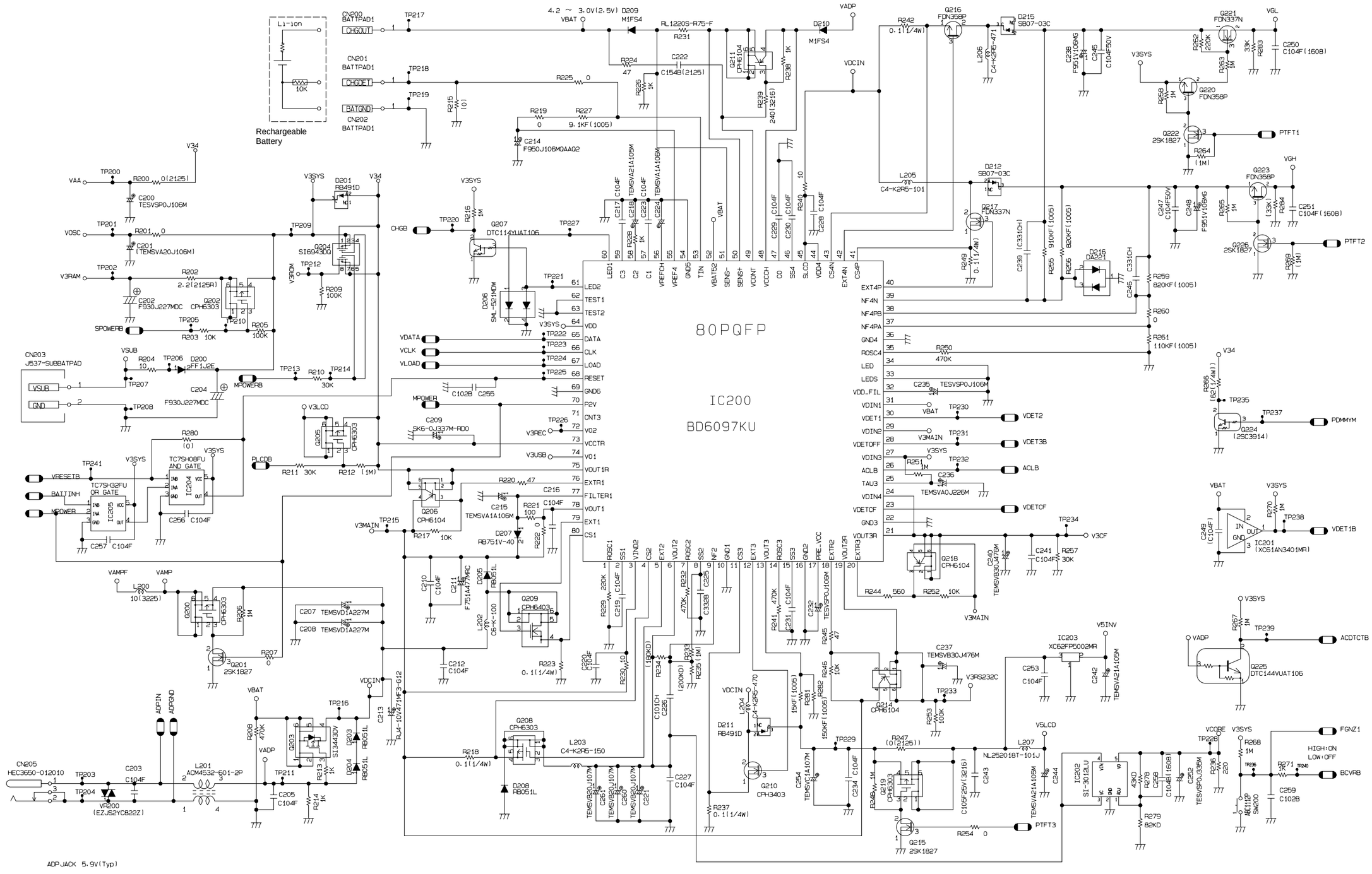


12. SCHEMATIC DIAGRAMS

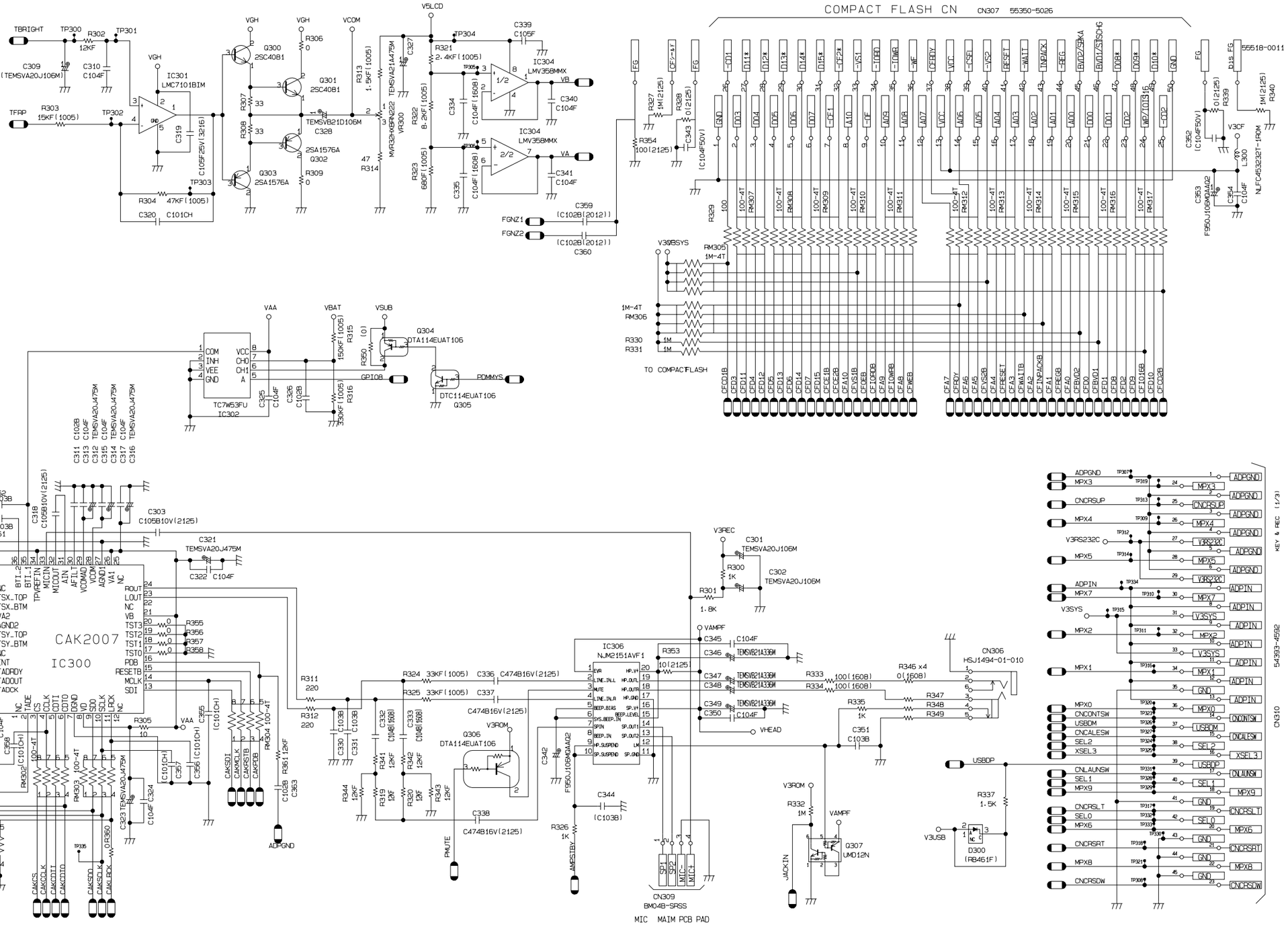
12-1. Main block (1/3)



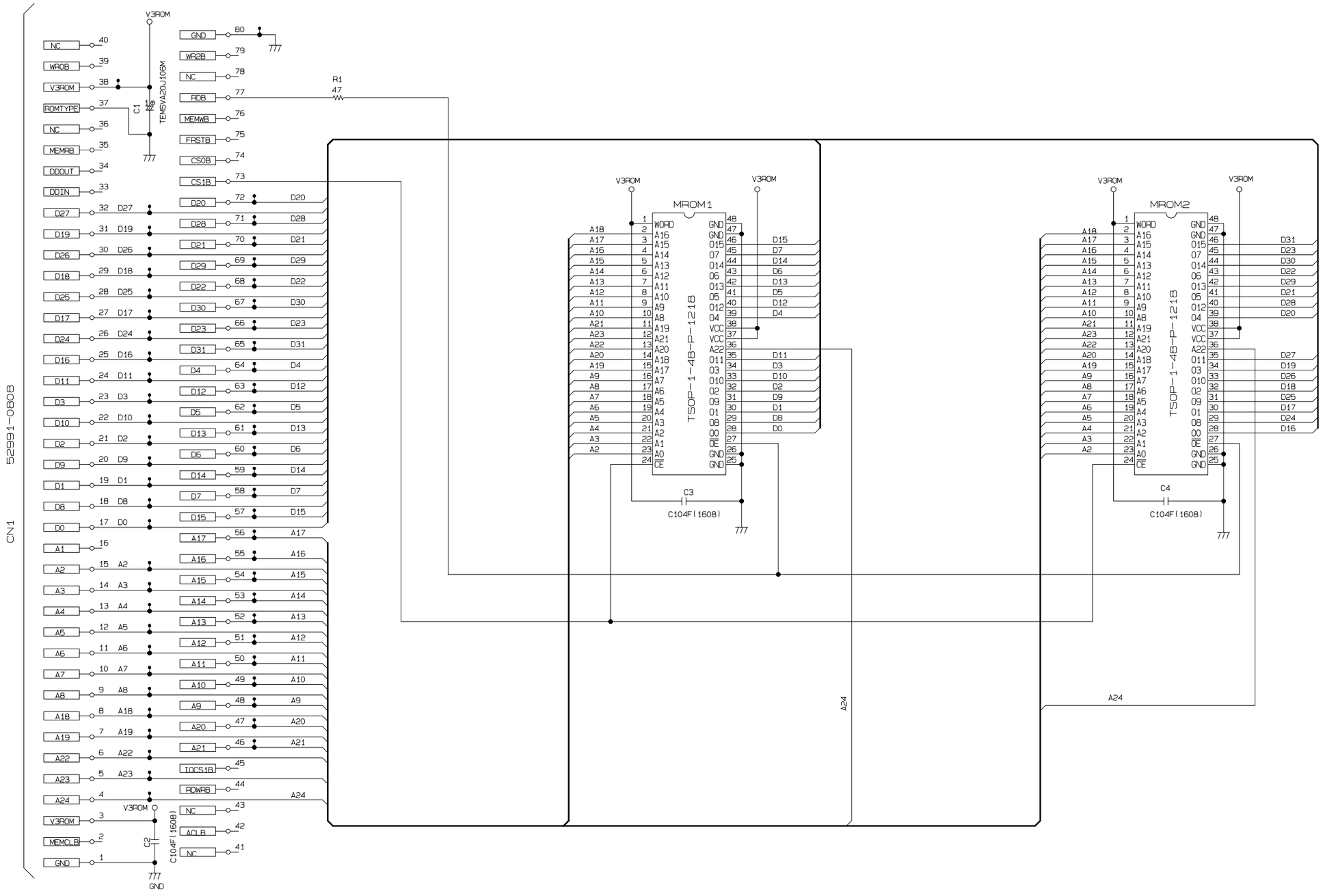
12-1. Main block (2/3)


Li-ion
10K
Rechargeable Battery
CN200 BATTPAD1
CHGOUT
CN201 BATTPAD1
CHGDET
BATGND
CN202 BATTPAD1
TP217
TP218
TP219
4.2 ~ 3.0V(2.5V) D209
VBAT
M1FS4
RL1220S-R75-F
R231
R224 47
C222 C154B(2125)
R225 0
R226 1K
R215 (0)
R219 0
R227 9.1KF(1005)
C214 F950J106MQAAQ2
Q211 CPH6104
R238 1K
R239 240(3216)
D210 M1FS4
VADP
VDCIN
R242 0.1(1/4W)
Q216 FDN358P
D215 SB07-03C
L205 C4-K2R5-471
C238 F951V106MG
C245
C104F50V
V3SYS
Q221 FDN337N
VGL
R262 220K
R263 1M
R283 33K
C250 C104F(1608)
Q220 FDN358P
R258 1M
Q222 2SK1827
R264 (1M)
PTFT1
VGH
Q223 FDN358P
R265 1M
R284 (33K)
C251 C104F(1608)
Q226 2SK1827
R269 (1M)
PTFT2
L205 C4-K2R5-101
D212 SB07-03C
Q217 FDN337N
R249 0.1(1/4W)
C239 (C331CH)
R255 910KF(1005)
R256 820KF(1005)
D216 DA221
C331CH
C247 C104F50V
C248
F951V106MG
R259 820KF(1005)
R260 0
R261 110KF(1005)
R250 470K
C235 TESVSP0J106M
TP230
VBAT
VDET2
V3MAIN
TP231
VDET3B
V3SYS
TP232
ACLB
C236 TEMSVA0J226M
VDETCF
TP234
V3CF
R244 560
R252 10K
V3MAIN
Q218 CPH6104
C240 TEMSVB0J476M
C241 C104F
R257 30K
V34
R266 (62K)(1W)
TP235
TP237
PDMMYM
Q224 (2SC3914)
VBAT
V3SYS
R270 1M
TP238
VDET1B
C249 (C104F)
IC201 (XC61AN3401MR)
V5INV
IC203 XC62FP5002MR
C253 C104F
C242
TEMSVA21A105M
V3RS232C
TP233
C237 TEMSVB30J476M
Q214 CPH6104
R253 100K
R245 10K
R246 10K
R247 (0121251)
TP229
V5LCD
L207 NL252018T-101J
C244 TEMSVA21A105M
IC202 SI-3012LU
R278 43KD
R279 82KD
C258
C104F(1608)
C252 TESVSP0J335M
R236 220
TP228
VCORE
V3SYS
R268 1M
R271 1K
TP240
HIGH:ON
LOW:OFF
FGNZ1
BCVRB
C259
C102B
AK1112
SW200
V34
VAA
TP200
R200 0(2125)
C200 TESVSP0J106M
TP201
VOSC
R201 0
C201 (TEMSVA20J106M)
TP202
V3RAM
R202 2.2(2125R)
C202 F930J227MDC
Q202 CPH6303
SPOWERB
TP210
TP205
R203 10K
R205 100K
V3SYS
D201 RB491D
V34
Q204 SI6943DQ
V3RAM
TP212
R209 100K
TP209
CHGB
TP220
R216 1M
Q207 DTC114YUAT106
TP227
D206 SML-521MDW
TP221
LED2
TEST1
TEST2
VDD
DATA
CLK
LOAD
RESET
GND6
P2V
CNT3
VCCTR
VO1
VOUT1R
EXTR1
FILTER1
VOUT1
EXT1
CS1
C104F
C217
TEMSVA21A105M
C218
C223
C224
C3
C2
C1
VREFCH
VREF4
GND5
T1N
VBATS2
SENS-
SENS+
VCONT
VCCCH
C0
SS4
SLCD
VDD4
CS4N
CS4P
EXT4N
EXT4P
NF4N
NF4PB
NF4PA
GND4
ROSC4
LED
LEDS
VDD_FIL
VDIN1
VDET1
VDIN2
VDETOFF
VDIN3
ACLB
TAU3
VDIN4
VDETCF
GND3
VOUT3R
EXTR3
EXTR2
VOUT2R
PRE_VCC
GND2
VOUT3
EXT3
CS3
NF2
GND1
SS2
VOUT2
ROSC2
SS3
VIN2
CS2
EXT2
VOUT2
ROSC1
SS1
VIN1
C229
C230
C228
R240 10
C104F
C104F
C104F

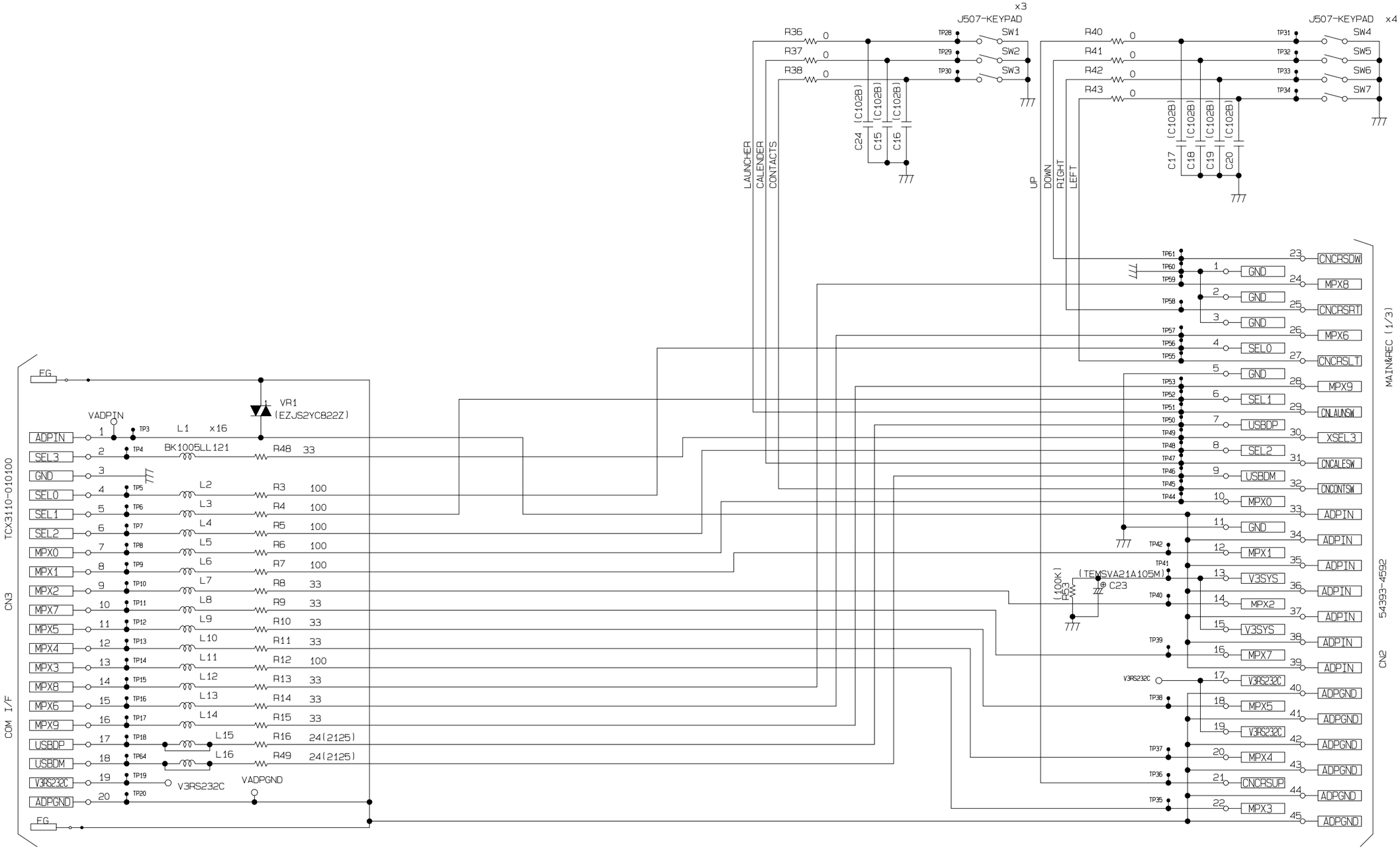
12-1. Main block (3/3)



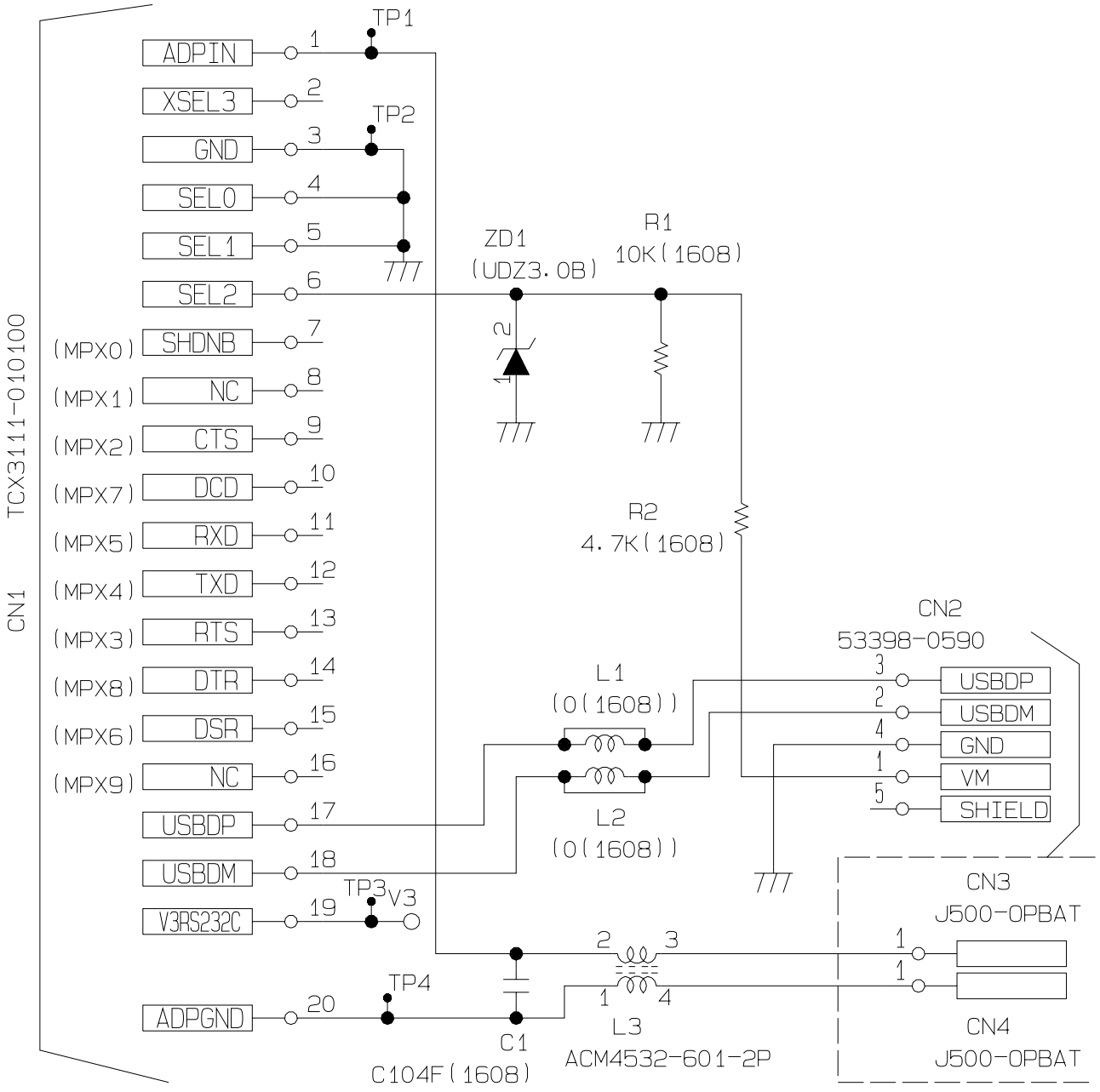
12-2. ROM block



12-3. Key block



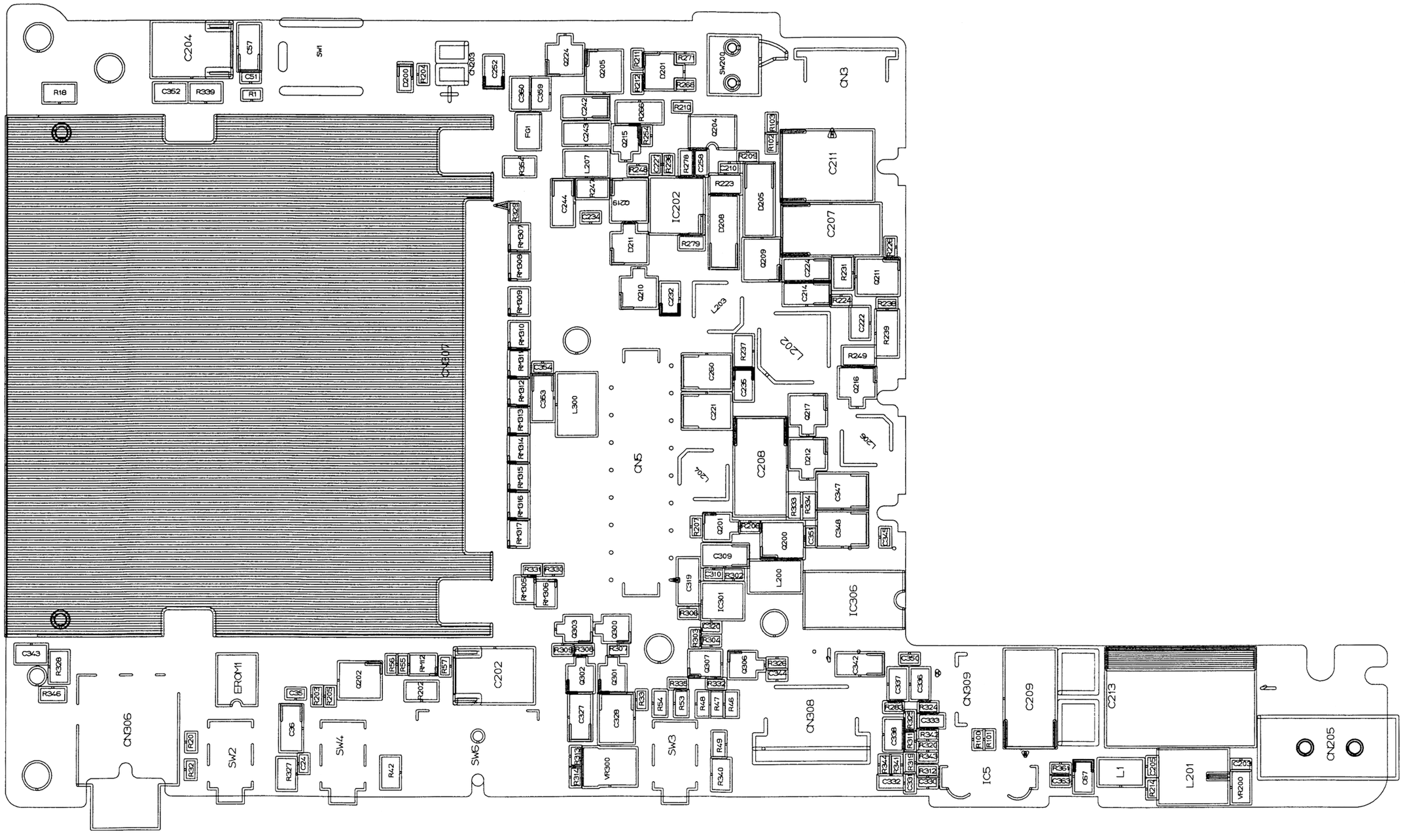
12-4 USB Cradle



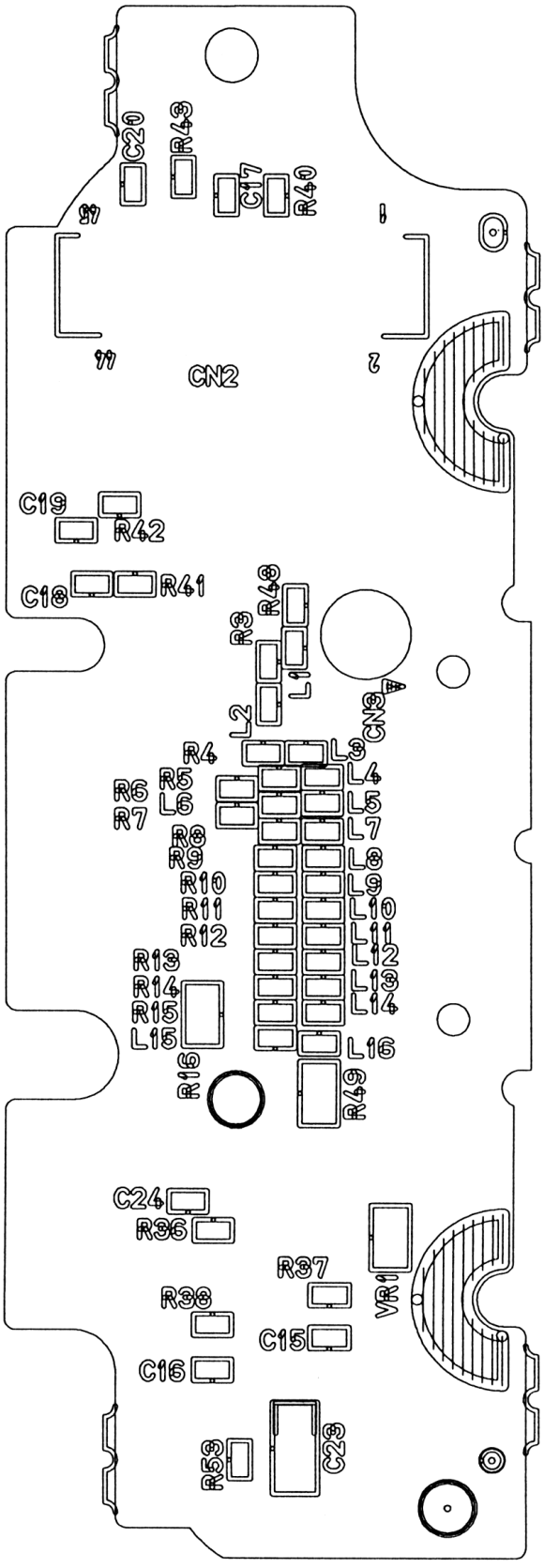
13. PCB VIEW

Main PC Board (1/2)

Main PC Board (2/2)



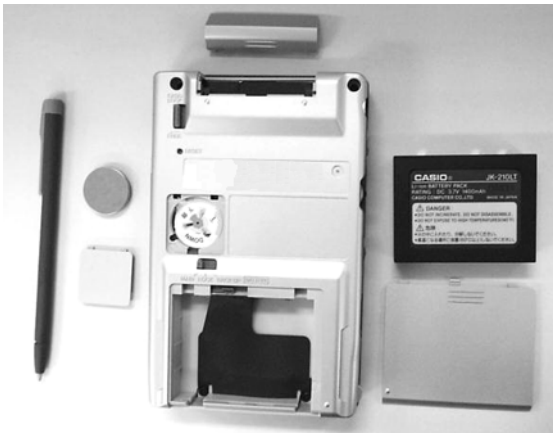
Key PC Board


C20
R43
C17
R40
CN2
C19
R42
C18
R41
R48
R3
L1
L2
CN3
R4
L3
L4
R5
R6
L6
L5
R7
L7
R8
R9
L8
L9
R10
L10
R11
L11
R12
L12
R13
L13
R14
L14
R15
L15
L16
R16
R49
C24
R36
R37
VR1
R38
C15
C16
R53
C23

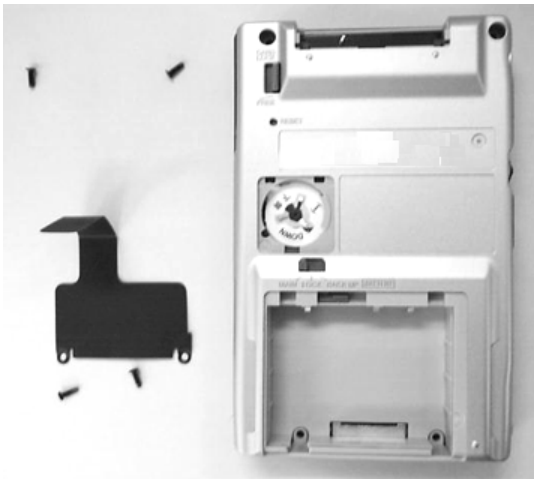
14. DISASSEMBLY PROCEDURE

Refer to **GENERAL GUIDE**, **PARTS LIST** and **EXPLODED VIEW** in this manual also.

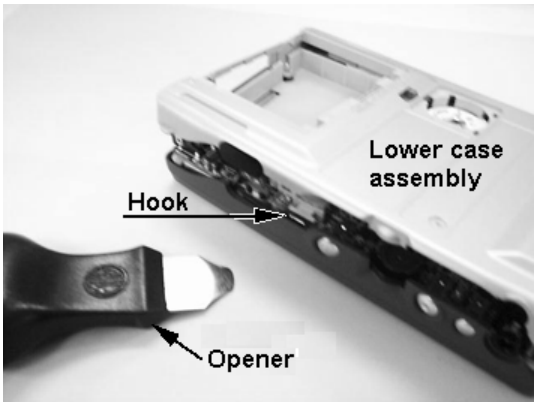
1. Remove a stylus, a lithium battery for memory backup, a rechargeable battery and CF card slot cover as shown to the right photograph.
   Refer to **GENERAL GUIDE, RESET OPERATION** and **BATTERY REPACEMENT** in this manual concerning how to remove.



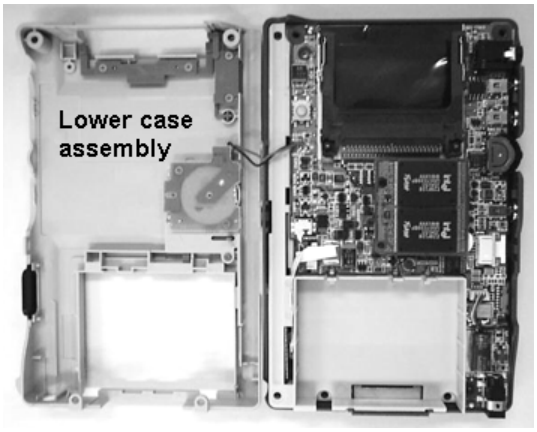
2. Remove a black battery and screws as shown to the right.



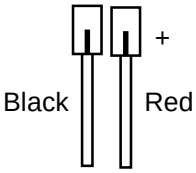
3. Open the unit after unhooking using a opener as shown to the right.
   It is recommended to unhook while pulling the upper case outside

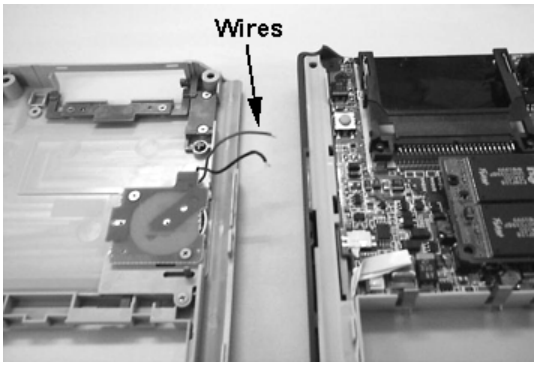


4. Open the unit as shown to the right.

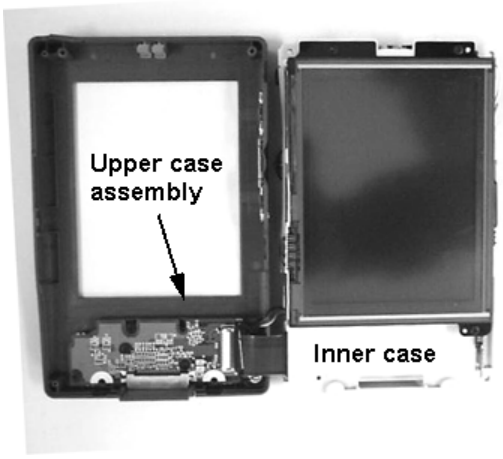


5. Remove the lower case assembly after disconnecting wires from Main PC Board assembly using a soldering iron as shown to the right photograph.
   Red wire will be connected to the terminal pad marked plus (+) before this disconnection as shown to the right illustration.

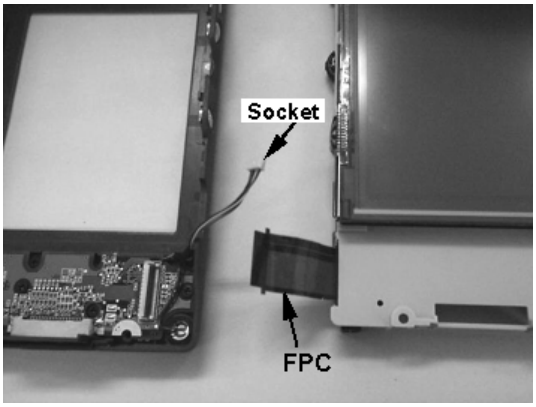




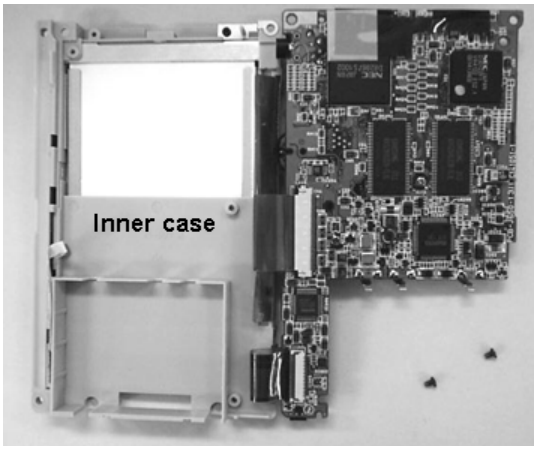
6. Open the upper case and inner case assemblies as shown to the right.



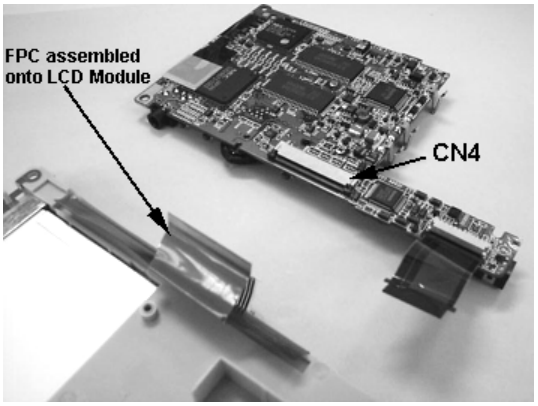
7. Disconnect FPC from CN2 connector assembled onto Key PC Board assembly.
   Then disconnect the socket from the connector assembled onto Main PC Board assembly.
   Doing so, both the upper case and inner case assemblies can be separated as shown to the right.



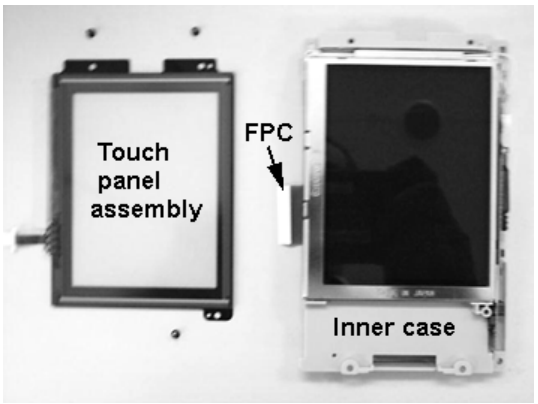
8. Open the inner case assembly as shown to the right.



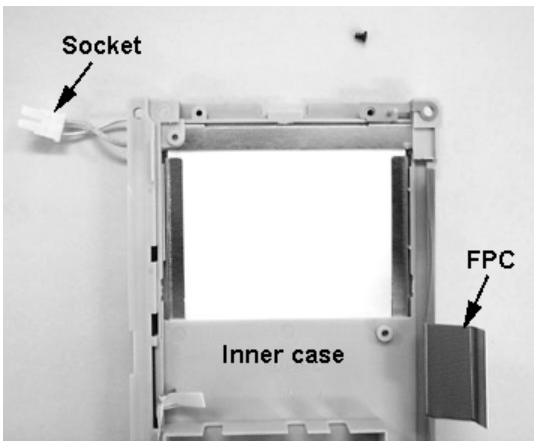
9. Remove Main PC Board assembly after disconnecting FPC assembled onto LCD Module from CN4 connector as shown to the right.



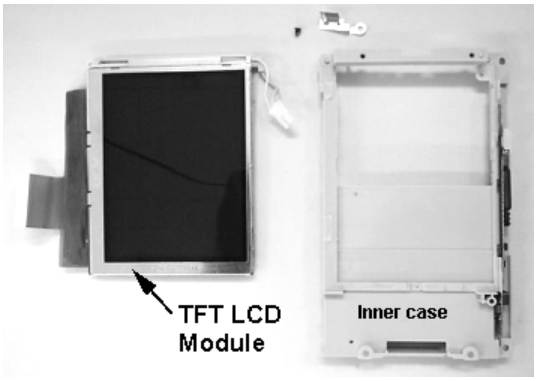
10. Remove the touch panel assembly after removing screws.



11. Disconnect the socket from CN1 connector assembled onto the inverter PC Board assembly as shown to the right.



12. Peel TFT LCD Module from the inner case assembly as shown to the right.
At this time, take care that this module is damaged because this module is strongly attached to the inner case.
Don't use any chemical substances to peel it. Otherwise, TFT LCD is damaged by these substances.



14. PARTS PRICE LIST

14-1.PCB ASSY, COMPONENTS and OTHERS

N	Item	Code No.	Parts Name	Specification	Applicable	Q	Price Code	R
	PCB ASSY/MAIN (C141078*1)							
	1	6566 6260	SPRING/BATTERY	C342892-1	Common	3	AA	C
	2	6566 3840	TAPE/SHIELD	C443236-1	Common	1	AH	C
	3	6566 4660	TAPE	C443536-1	Common	1	AA	C
	4	6566 4720	TAPE/INSULATION	C443588-1	Common	1	AA	C
	5	6566 2100	SPACER	C442708-1	Common	2	AA	C
	SW1	3412 1946	SWITCH	EVQ7QH03W	Common	1	AB	C
	SW2,SW3,SW4	2370 1392	SWITCH	EVQPSC02K	Common	3	AB	C
	SW6	3412 2084	SWITCH	SLLB12-A-B-B	Common	1	AN	C
	SW200	3412 2107	SWITCH	ABC1112P	Common	1	AB	C
	CN3	3502 2568	CONNECTOR	52746-0690	Common	1	AB	C
	CN4	3502 2460	CONNECTOR	54104-4590	Common	1	AH	C
N	CN5	2259 2791	CONNECTOR	53916-0808	Common	1	AL	C
	CN205	2254 0553	CONNECTOR	HEC3650-012010	Common	1	AG	C
N	CN306	3502 2647	JACK	HSJ1494-01-010	Common	1	AF	C
	CN307	3502 2553	CONNECTOR	55350-5026	Common	1	AU	C
	CN308	3502 2644	CONNECTOR	52271-0490	Common	1	AA	C
N	CN309	3502 2296	CONNECTOR	BM04B-SRSS-TB	Common	1	AC	C
N	CN310	1003 4737	CONNECTOR	54393-4592	Common	1	AK	C
	Q1	2259 2695	TRANSISTOR	DTA114YKAT146	Common	1	AA	C
	Q201,Q215,Q222,Q226	2254 0490	FET	2SK1827-TE85L	Common	4	AA	C
	Q207	7911 3038	TRANSISTOR/DIGITAL	DTC114YUAT106	Common	1	AA	C
	Q300,Q301	2250 1605	TRANSISTOR	2SC4081T106	Common	2	AA	C
	Q304,Q306	2259 2513	TRANSISTOR/DIGITAL	DTA114EUAT106	Common	2	AA	C
	Q305	2259 2765	TRANSISTOR/DIGITAL	DTC114EUAT106	Common	1	AA	C
	D2	2370 1390	LED	SML-210LTT86M	Common	1	AA	C
	D201,D211	2360 3061	DIODE/SCHOTTKY	RB491DT146	Common	2	AA	C
	D203,D204,D205,D208	2895 3130	DIODE/SCHOTTKY	RB051L-40TE25	Common	4	AC	C
	D207	7911 2114	DIODE	RB751V-40TE-17	Common	1	AA	C
	D209,D210	7911 3787	DIODE	M1FS4-4063	Common	2	AA	C
	D212,D215	2390 0623	DIODE/SCHOTTKY	SB07-03C-TB	Common	2	AC	C
N	X1	1002 8054	OSCILLATOR/CRYTAL	FCX-03-45.1584M2	Common	1	AM	C
N	X2	1002 8055	OSCILLATOR/CRYTAL	FCX-03-48.000M2	Common	1	AM	C
N	X3	1002 8045	OSCILLATOR/CRYTAL	MC146-32.768K-7/20	Common	1	AK	C
N	X4	2590 2783	OSCILLATOR/CRYTAL	FCX-03-18.432M2	Common	1	AL	C
	VR300	3122 3717	RESISTER/CHIP SEMI-FIXED	MVR32HXBRN222	Common	1	AA	C
	IC203	2105 6328	IC/MOS	XC62FP5002MR	Common	1	AD	C
	IC204	2105 3773	IC/MOS	TC7SH08FU-TE85L	Common	1	AB	C
	IC205	2105 5824	IC/L-MOS	TC7SH32FU-TE85L	Common	1	AB	C
	INNER CASE ASSY							
N	6	1003 6262	PCB ASSY/MAIN	C141078*1 TK	Common	1	EM	B
	7	1000 3145	PANEL/TOUCH	KTB97B002A	Common	1	BW	B
	8	1002 6477	LCD MODULE	COM38T3104DPQ	Common	1	EC	B
	9	6566 3690	CASE/INNER	C140810-1	Common	1	AM	X
	10	6566 3700	PLATE	C342313-1	Common	1	AE	C

N	Item	Code No.	Parts Name	Specification	Applicable	Q	Price Code	R
	11	6566 3720	CABLE/JOINT	C443132-1	Common	1	AD	C
	12	1000 1738	TAPE	C443824-1	Common	4	AA	C
	13	6566 1880	TAPE	C442716-1	Common	1	AA	C
N	14	1003 4750	TAPE	C444550-1	Common	2	AA	C
N	15	1003 4749	PCB ASSY/FPC	C343487-1	Common	1	AE	C
	16	1003 0002	PCB ASSY/INVERTER	INV-J598-S	Common	1	BR	B
	17	6566 3860	SPRING/EARTH	C443425-1	Common	1	AC	C
	18	6566 4410	TAPE	C443559-1	Common	2	AA	C
	19	6566 4420	TAPE	C443563-1	Common	1	AA	C
	20	6566 4670	TAPE	C443583-1	Common	1	AB	C
	21	6566 4710	TAPE/INSULATION	C443575-1	Common	1	AA	C
	22	6566 5230	TAPE/INSULATION	C443621-1	Common	1	AA	C
N	23	6566 3740	TAPE	C443153-1	Common	4	AA	C
N	81	1003 7160	TAPE	C444634-1	Common	2	AA	C
	LOWER CASE ASSY							
N	24	1003 4759	CASE/LOWER	C140809A-6	Common	1	BB	X
	25	6566 3640	HOLDER	C342321-1	Common	1	AC	C
	26	6566 3650	KNOB	C342320-1	Common	1	AB	C
	27	6566 3660	KNOB	C342319-1	Common	1	AB	C
	28	6566 3670	KEY	C342326-1	Common	1	AC	C
	29	6566 3680	HOLDER	C342370-1	Common	1	AC	C
N	82	1004 1541	TAPE	C444712-1	Common	2	AA	C
	PCB ASSY/BACKUP BATTERY							
	30	6566 3760	PCB	C342334-1	Common	1	AB	X
	31	6562 1331	SPRING/BATTERY	C442225A-1	Common	1	AA	C
	32	6511 0770	SPRING/BATTERY	C311380-1	Common	1	AA	C
	33	6410 4560	PLATE/INSULATION	C413459-1	Common	1	AA	C
	PCB ASSY/KEY(C343550*1)							
N	CN2	1003 4737	CONNECTIOR	54393-4592	Common	1	AK	C
	CN3	2259 2752	CONNECTIOR	TCX3110-010100	Common	1	AR	C
	PCB ASSY/AUDIO(C241821*1)							
	34	3335 6646	MIC	WM-64KY102	Common	1	AM	C
	35	6562 1620	HOLDER	C442143-1	Common	1	AA	C
N	36	1003 4770	CABLE SUB ASSY	C444502*1	Common	1	AE	C
	37	3335 6578	SPEAKER	20D2	Common	1	AV	C
	UPPER CASE ASSY							
N	39	1003 6263	PCB ASSY/KEY	C343550*1 TK	Common	1	BV	B
	40	6566 1650	NET/SPEAKER	C442768-1	Common	1	AA	C
	41	6566 1622	HOLDER/SPEAKER	C442694B-1	Common	1	AA	C
N	42	1003 4754	CASE/UPPER	C140808D-5	Common	1	BQ	X
N	43	1003 4752	KEY	C343537-1	Common	1	AI	C
	44	6566 3560	COVER	C342318-1	Common	2	AB	C
N	45	1003 4751	KEY	C342323A-4	Common	1	AI	C
N	46	1003 4756	KEY	C444543-1	Common	1	AC	C
N	47	1003 4757	KEY	C444544-1	Common	1	AC	C

N	Item	Code No.	Parts Name	Specification	Applicable	Q	Price Code	R
N	48	1003 4758	KEY	C444545-1	Common	1	AC	C
	49	6566 3610	RUBBER/KEY	C342324-1	Common	1	AA	C
	50	6566 3620	RUBBER/KEY	C342325-1	Common	1	AA	C
	51	6566 2310	TAPE	C442920-1	Common	1	AA	C
N	83	1003 7245	TAPE	C444613-1	Common	1	AA	C
	COMPONENTS							
N	52	1003 4729	PEN SUB ASSY	C342013A*4	Common	1	AK	C
N	53	1003 6265	PCB ASSY/ROM	C343480*2 TK	Common	1	CX	B
N	54	1003 4732	COVER/BATTERY	C342327-4	Common	1	AL	C
N	55	1003 4731	COVER	C342317-4	Common	1	AG	C
	56	1001 5853	COVER	C342316-3	Common	1	AB	C
N	57	1003 4730	COVER	C342315-4	Common	1	AG	C
	58	6566 3520	FILTER/IRDA	C342328-1	Common	1	AB	C
N	59	1003 4733	PLATE	C342432-14	Common	1	AA	C
	60	6566 3310	BADGE/CASIO	C443357-1	Common	1	AE	C
	61	6566 4430	SHEET/BATTERY	C443498-1	Common	1	AB	C
	62	6566 0270	LABEL/CAUTION	C341668-2	Common	1	AA	C
	OTHERS							
	63	6566 3220	BOARD/CRADLE	C241325-1	Common	1	AM	C
	64	3815 0828	CASE/SOFT	SCJ530AA02	Common	1	AS	C
	65	1002 9287	SOFTWARE/CD-ROM(MS)	CDJ670AA01A	Common	1	BM	C
	66	1001 7213	ADAPTER/AC	AD-C59200U	U, C	1	CB	C
	*AC Input voltage of this AC Adapter (item 66) is 120V.							
	67	1001 5583	ADAPTER/AC	AD-C59200G	DA, DB, DC, DD, E, B	1	CH	C
	*AC Input voltage arange of this AC Adapter (item 67) is 100~240V.							
	**** Refer to EXPLODED VIEW concerning these AC Adapters (item 66 and 67).***							
	68	3815 0820	BATTERY/ACCUMULATOR	CGP-E/104A	Common	1	CS	C
	69	1000 6300	CORD/AC	CBL-K799-AC-EU	DA, DB, DC, DD, E	1	AR	C
	70	1000 6299	CORD/AC	CBL-K799-AC-JU	DA	1	AO	C
	71	1002 9319	CORD/AC	SP23-17688	DD, B	1	BJ	C
	72	1002 9316	CORD/AC	INQ957	DC	1	AS	C
	****Refer to to the lower table concerning these AC Power Cord (item69~72).***							
N	73	1003 4936	SOFTWARE/CD-ROM(CASIO)	CDJ650EA02A	U, C	1	AL	C
N	74	1003 4937	SOFTWARE/CD-ROM(CASIO)	CDJ650EA03A	DA, DB, DC, DD	1	AM	C
N	75	1003 4938	SOFTWARE/CD-ROM(CASIO)	CDJ650EA04A	E, B	1	AM	C
	Note 1: CD-ROMs (item 73, 74 and 75) are the English Version CD-ROMs.							
	Note2: CD-ROM for music software and AOL CD-ROM will be not supplied as spare parts because of the direct supply from Microsoft Corp. etc. as well as E-115. And these CD-ROMs are shipped to U.S.A. and Canada.							
N	76	1004 2333	SOFTWARE/CD-ROM	CDJ650EA07A	U, C	1	AM	C
	Note3: This CD-ROM (item 76) for Media Player Upgrade will be not enclosed from the middle of mass production (Maybe, serial mass production unit's No. 30001~).							
		Parts prices will be informed separately by Parts Price List.						

Applicable	Shipment
U	U.S.A.
C	Canada
E	Europe
B	U.K.
DA	Others (AC 100~120V)
DB	Others (AC 200~240V)
DC	Australia
DD	Hong Kong

AC Power Cord

Item	Code No.	Specification	Note
69	1000 6300	CBL-K799-AC-EU	*German Type (Round 2 Pin Plug)*
70	1000 6299	CBL-K799-AC-JU	*USA and Canada Type (Rectangular 2 Pin Plug)*
71	1002 9319	SP23-17688	*UK Type*
72	1002 9316	INQ957	*Australian Type*

14-2. CRADLE

N	Item	Code No.	Parts Name	Specification	Applicable	Q	Price Code	R
N	101	1003 6981	CRADLE	C241388*8 TK	Common	1	CH	C
N	102	1003 6267	PCB ASSY/CRADLE	C241826*1 TK	Common	1	BN	C
N	103	1003 4769	CABLE	UCJ650AA01A	Common	1	AR	C
		Parts prices will be informed separately by Parts Price List.						

Notes:N-New parts

Q-Quantity used per unit

R-Rank

R- A:Essential

B:Stock recommended

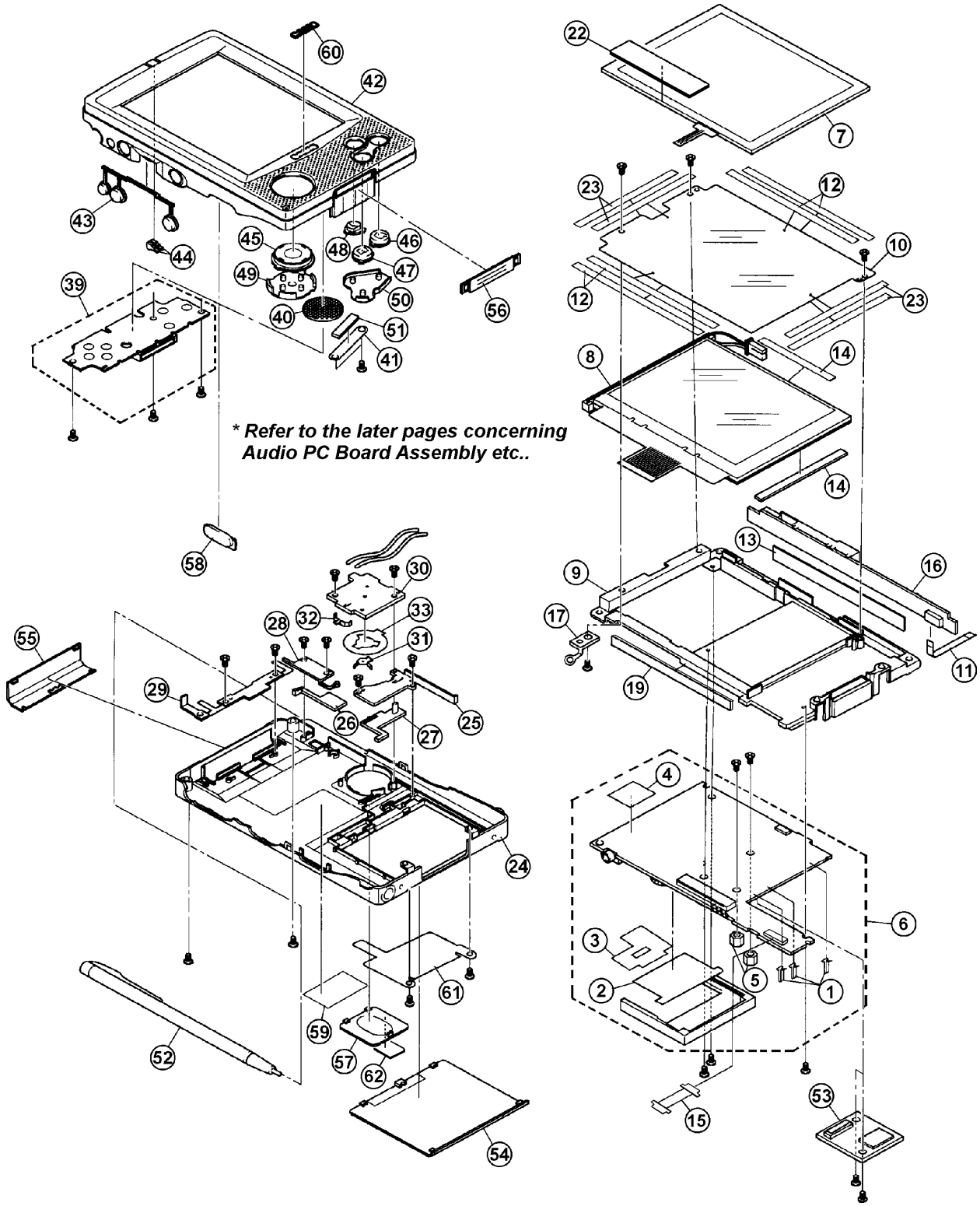
C:Others

X:No stock recommended

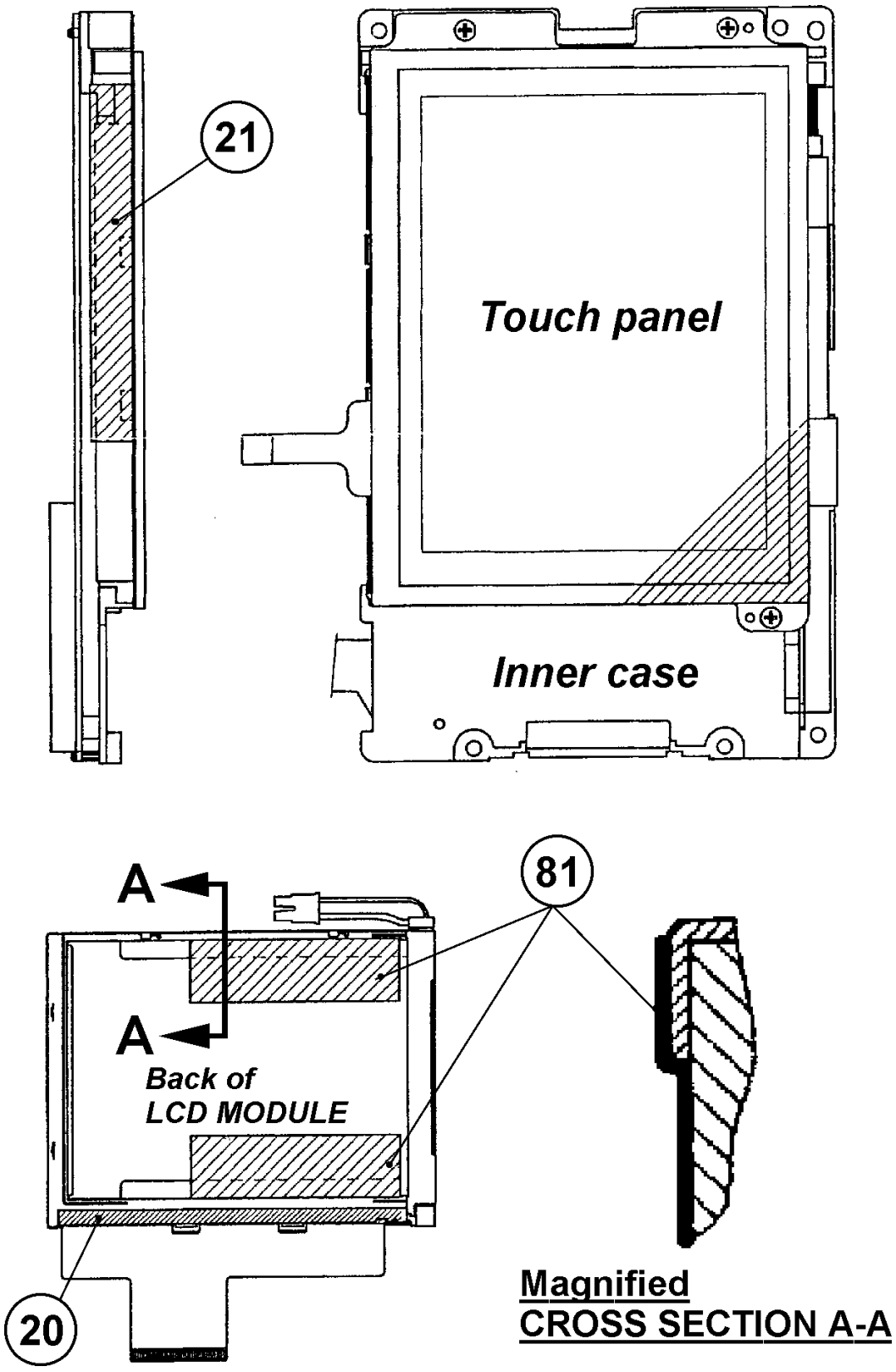
16. EXPLODED VIEW

16-1. PCB ASSY and COMPONENTS (1/6)

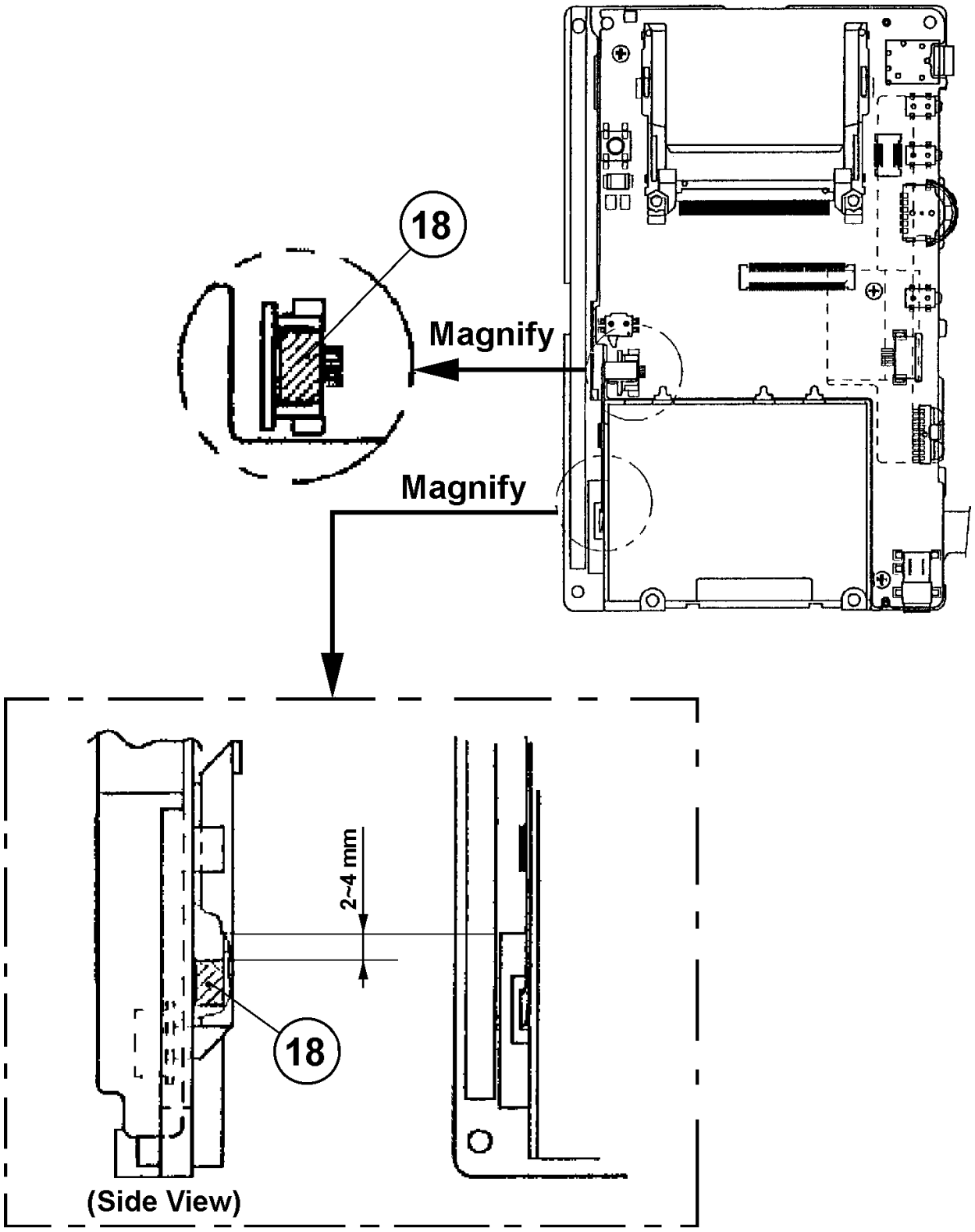
NOTE: Don't heap up item 6 (MAIN PCB ASSY) or put on a heavy object onto item 6 to prevent from cracks in RAMs.



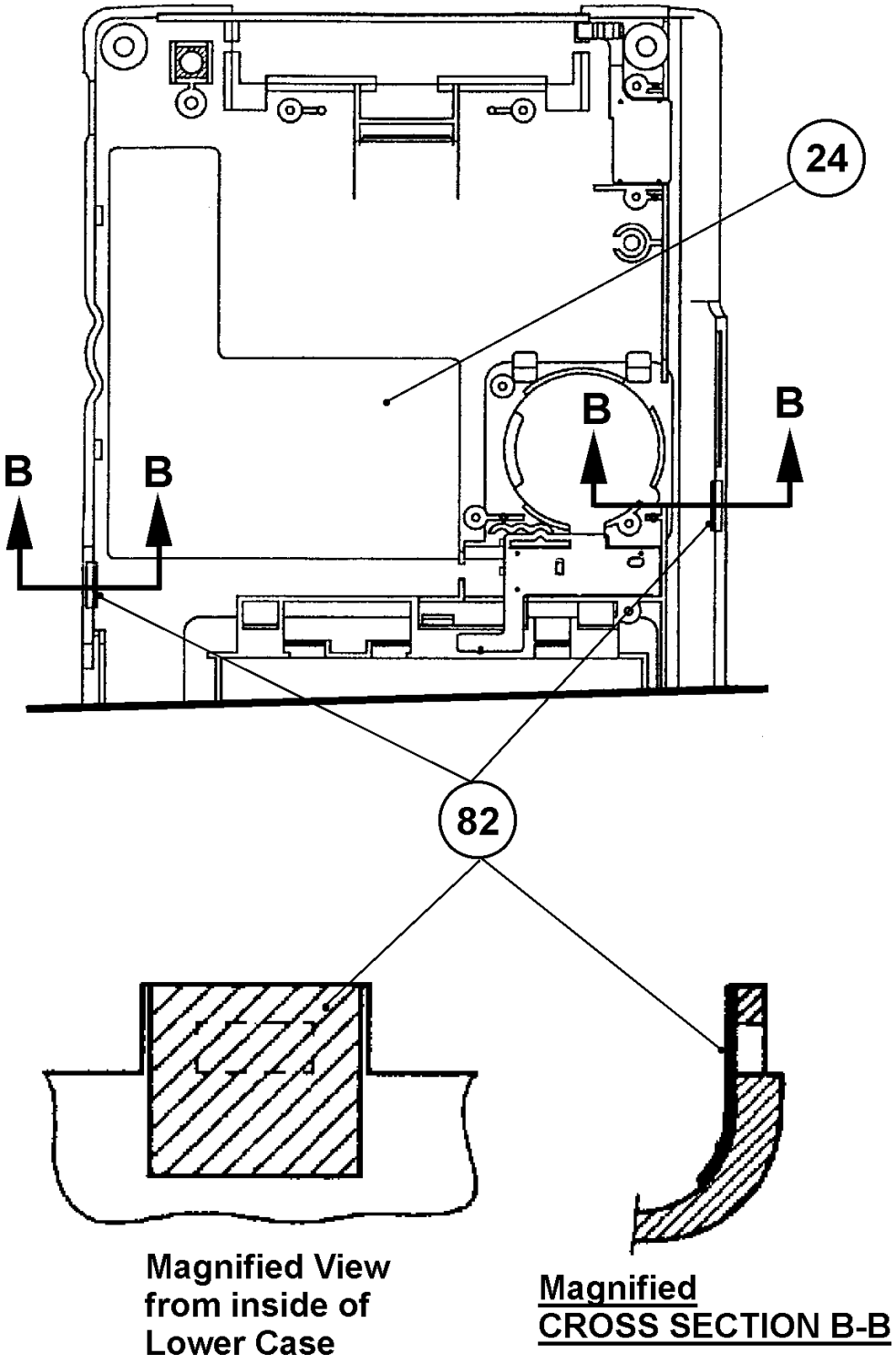
16-1. PCB ASSY and COMPONENTS (2/6)



16-1. PCB ASSY and COPONENTS (3/6)

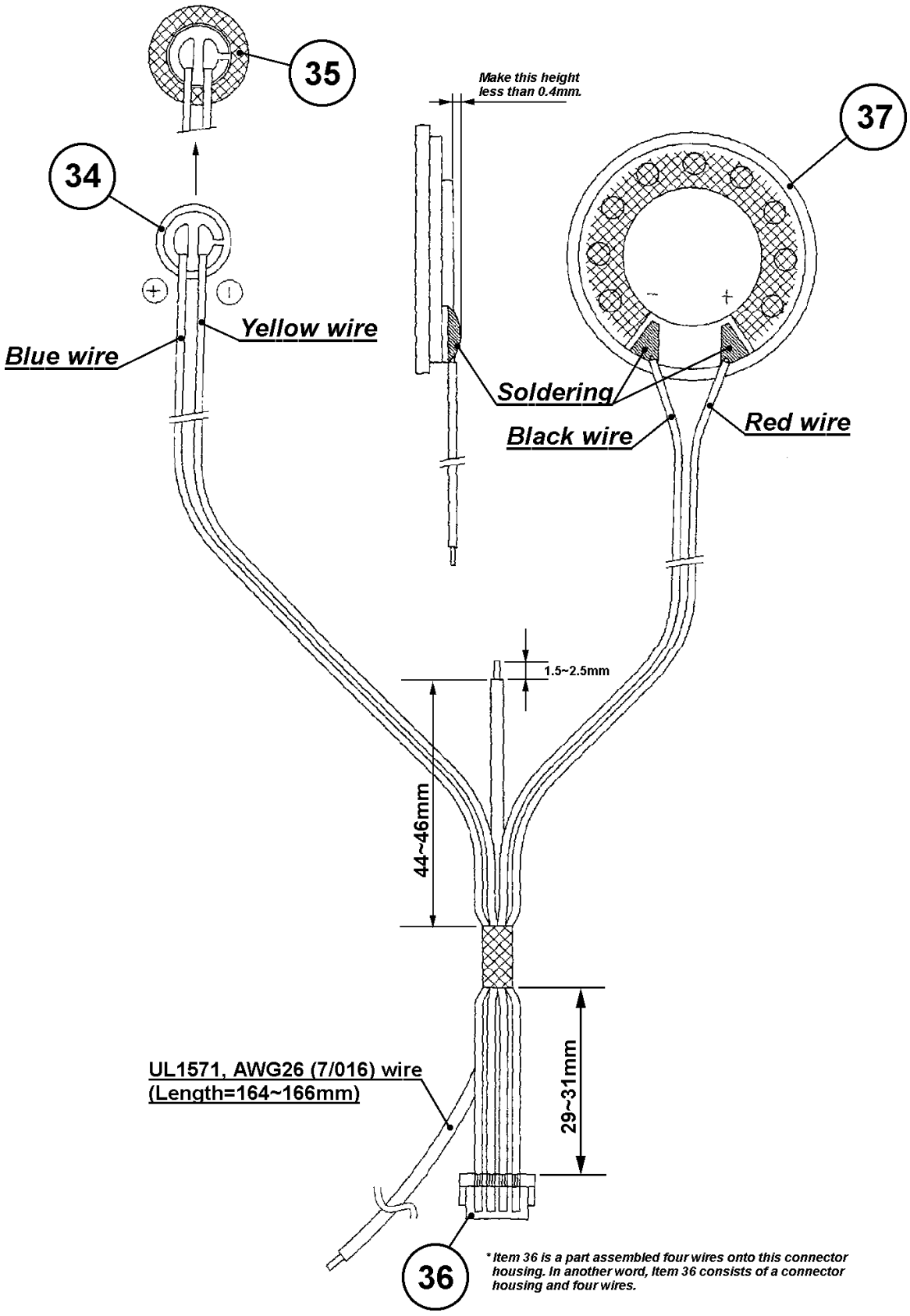


16-1. PCB ASSY and COPONENTS (4/6)

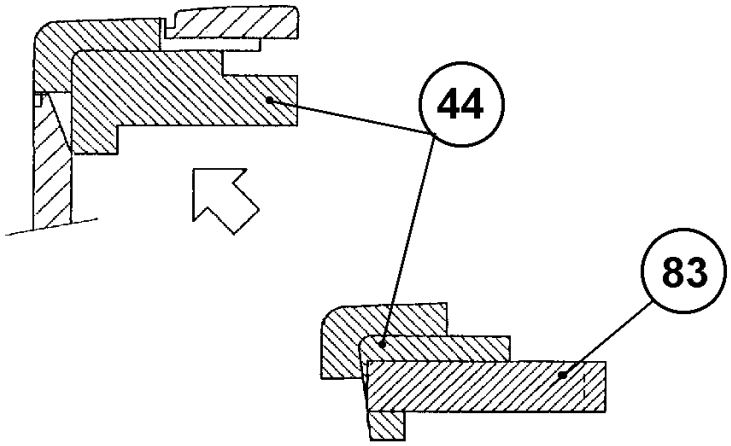


16-1. PCB ASSY and COPONENTS (5/6)

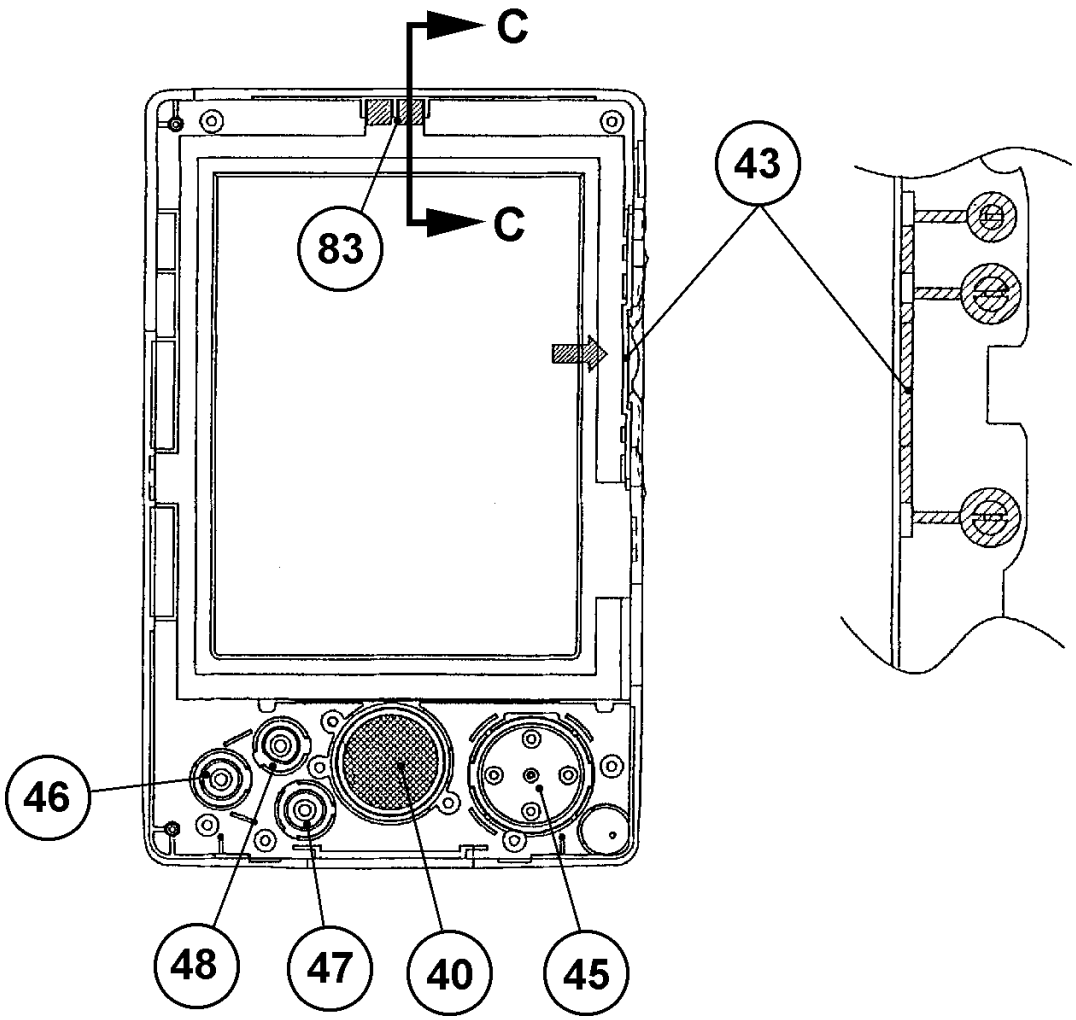
(PCB ASSY/AUDIO)



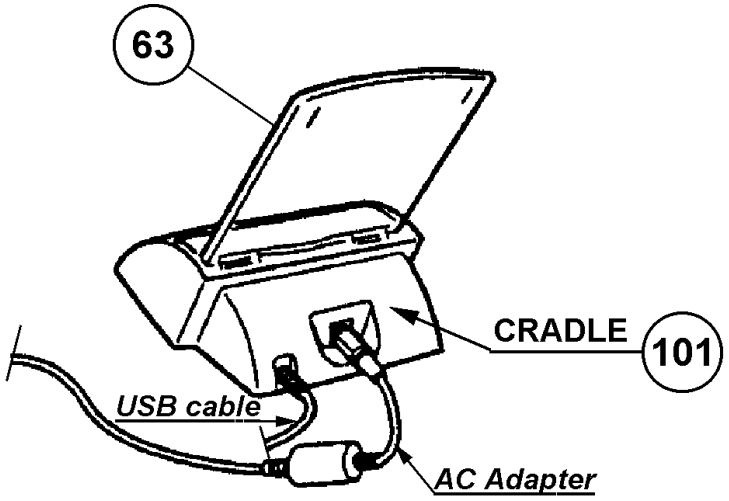
16-1. PCB ASSY and COPONENTS (6/6)

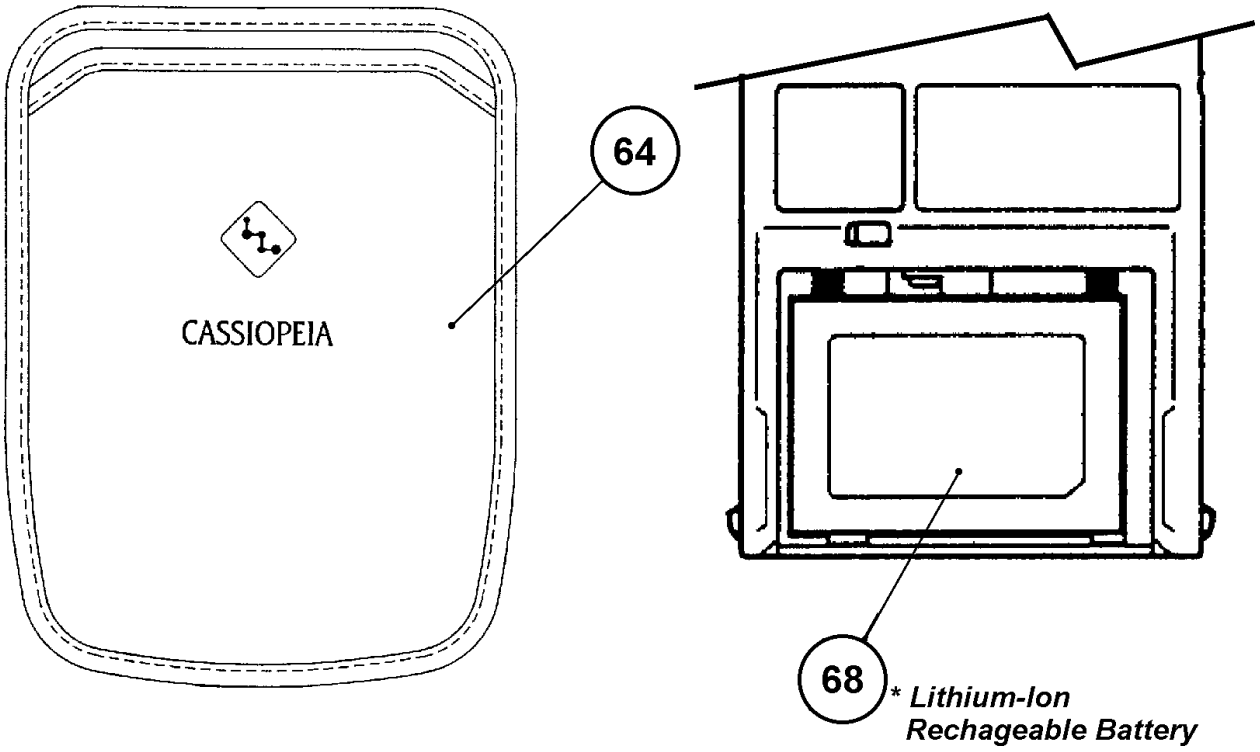


Magnified
CROSS SECTION C-C

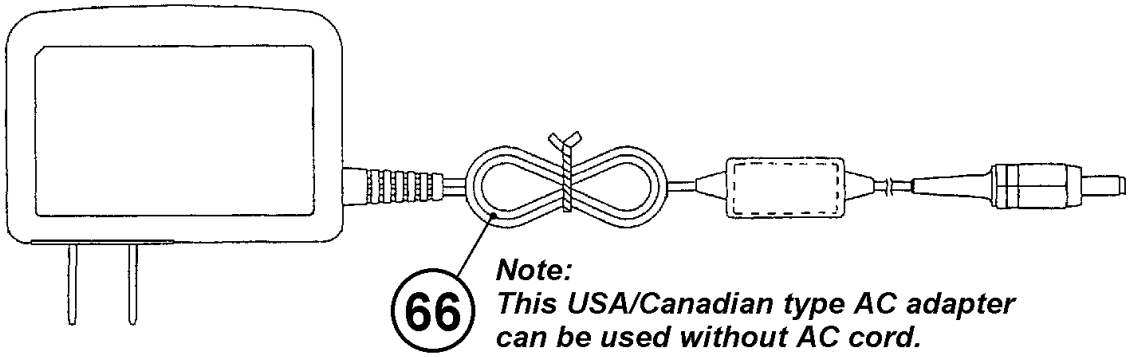


16-2. OTHERS (1/3)

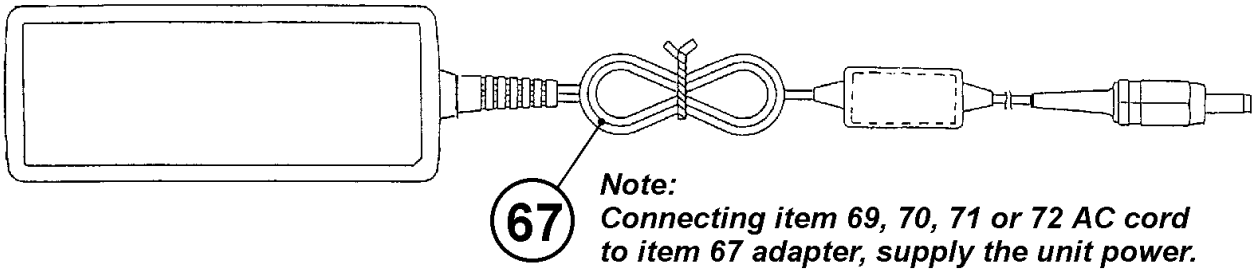




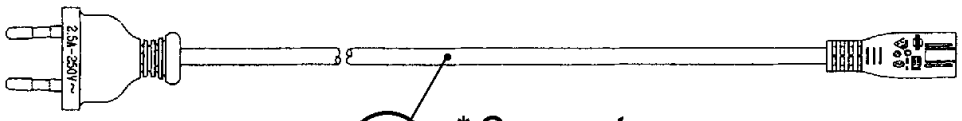
16-2. OTHERS (2/3)



66 *Note:*
This USA/Canadian type AC adapter can be used without AC cord.



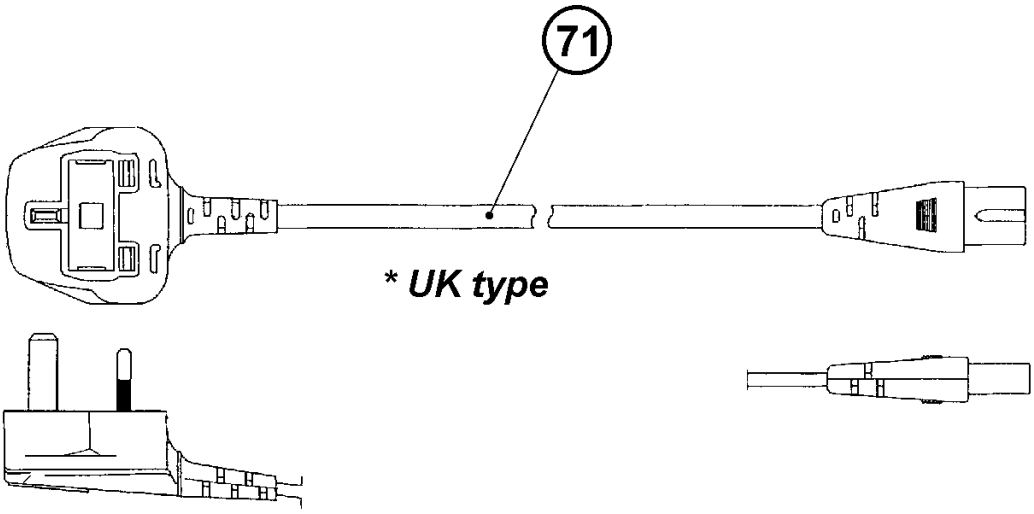
67 *Note:*
Connecting item 69, 70, 71 or 72 AC cord to item 67 adapter, supply the unit power. The unit power will not be supplied without this connection.



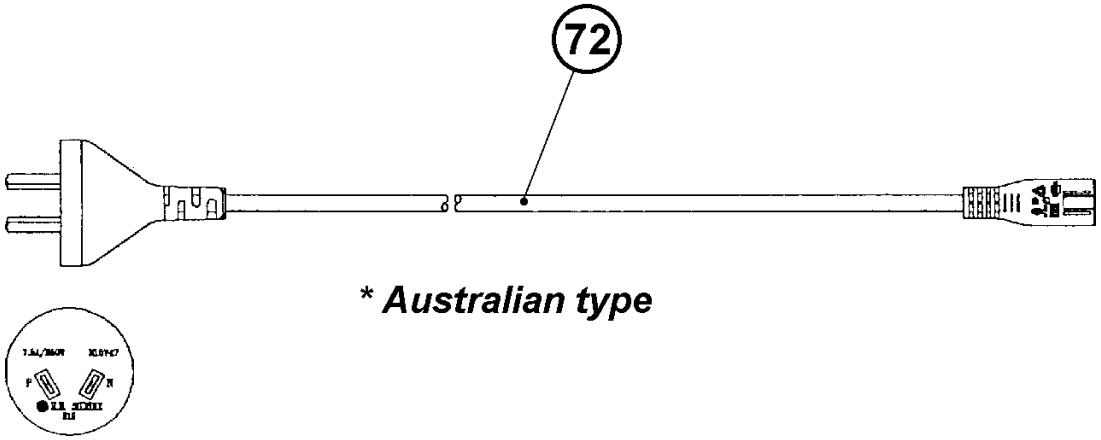
69 ** German type*

70 ** USA and Canada type*

16-2. OTHERS (3/3)

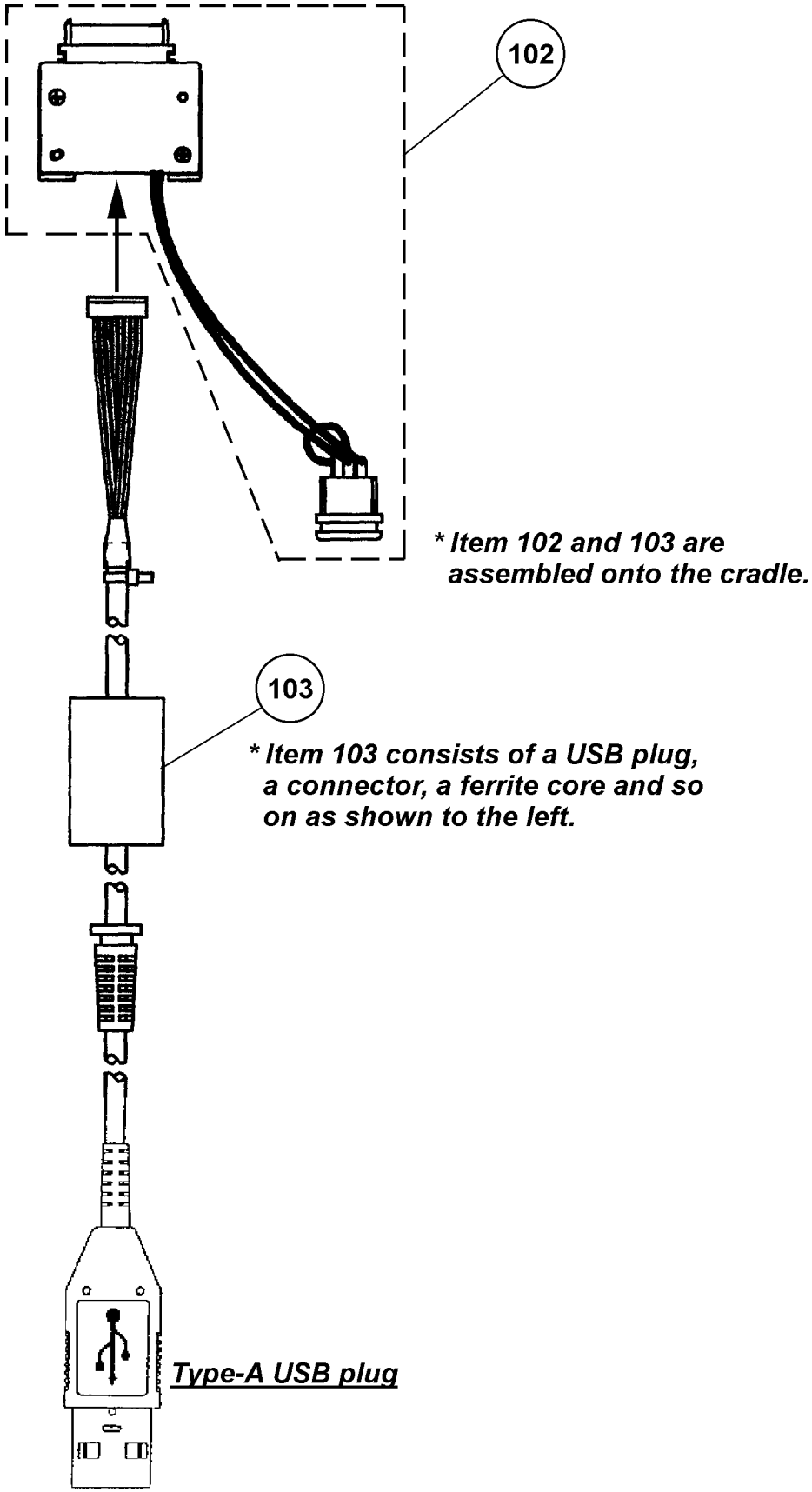


** UK type*



** Australian type*

16-3. CRADLE


102
* Item 102 and 103 are assembled onto the cradle.
103
* Item 103 consists of a USB plug, a connector, a ferrite core and so on as shown to the left.
Type-A USB plug

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